EUROFRAME - European Forecasting Network

Economic Assessment of the Euro Area: Forecasts and Policy Analysis

Spring Report 2006

Special Policy Issue:

Convergence and Integration of the New Member States to the Euro Area

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CONTENTS

EXECUTIVE SUMMARY

Following a period of sluggish growth, the Euro Area is showing signs of recovery and this is reflected in the GDP growth forecasts for 2006 and 2007. Growth in the final quarter of 2005 was weak at only 0.3 per cent, but we are forecasting a recovery to a stronger rate of 0.7 per cent in the first quarter of 2006. We expect this performance to be maintained through 2006 and so we forecast GDP growth of 2.2 per cent for this year. For 2007, we forecast a slightly slower rate of GDP growth, 2 per cent. The forecast also includes an expectation of continued strong growth in the world economy.

Summary of Key Forecast Indicators for Euro Area

	2002	2003	2004	2005	2006	2007
Output Growth	1.0	0.7	1.8	1.4	2.2	2.0
Inflation Rate	2.3	2.1	2.1	2.2	2.2	2.2
Unemployment rate	8.3	8.7	8.9	8.5	8.1	7.8
Govt. Balance as % of GDP	-2.6	-3.0	-2.8	-2.4	-2.4	-2.2

* Inflation rate is the HICP measure and unemployment is the EUROSTAT standardised rate

A number of positive factors underpin this forecast. Investment is forecast to provide the largest proportionate increase in the components of demand. In 2006, investment growth of 4 per cent is expected, substantially higher than the 2.1 per cent figure for 2005. Much of the improvement can be traced to Germany where business sentiment appears to be strong, thereby prompting an expectation of increased investment. The strong investment performance is expected to persist into 2007 with a growth rate of 3.5 per cent forecast.

Consumption and government spending are also forecast to contribute to the improved growth performance. Growth in consumption is forecast to rise from 1.4 per cent in 2005 to 1.6 per cent in 2006 and to rise again to 1.8 per cent in 2007. The contribution of net exports to overall growth will be somewhat muted. Although export volumes are forecast to accelerate due to growth in the global economy, so too are import volumes, partly in response to the growth in consumption

In spite of the pick-up in growth, inflation is forecast to remain at a rate similar to recent years – 2.2 per cent for each of 2006 and 2007, on a HICP basis. With regard to the labour market, the improved growth performance in 2006 and 2007 is expected to be reflected in a reduction in unemployment in both of these years. Starting from a rate of 8.5 per cent in 2005, the unemployment rate is forecast to fall to 8.1 per cent in 2006 and then to 7.8 per cent in 2007.

The context in which the forecast is set includes the following features. The World economy is expected to continue growing strongly in 2006 and 2007, with growth rates of 4.7 per cent and 4.4 per cent forecast. All the major economies will contribute to this performance. For example, the United States is forecast to grow by 3 per cent in both 2006 and 2007, Japan is forecast to grow by 2.7 per cent in 2006 and 2.1 per cent 2007 while the corresponding figures for China are 9.2 per cent and 8.2 per cent.

Other features of the overall context include an easing in oil prices and relative stability in the euro dollar exchange rate.

Additional elements of the analysis within the report include the following results:

- Between 2000 and 2006 the Chinese current account surplus increased by 4 per cent of GDP, and we might expect this to have reduced world real interest rates by up to 0.4 percentage points.

- Although investment has been weak in many economies of the Euro Area, the degree of weakness is not exceptional given prevailing economic conditions.

- The likelihood of recent oil price increases feeding through into wage demands is higher in the US than Europe, based on analyses of equations in which wages are partly determined by expected inflation. This difference helps to explain forecasts of higher inflation in the US relative to Europe and, within Europe, higher inflation in Italy.

With regard to the interest rate environment, we expect that the ECB will continue to raise key rates in the near future. There are several reasons why the ECB will tighten policy somewhat. One is that inflation has remained above the target for a long time, albeit moderately, and in the recent survey reported by the ECB inflation forecasts were raised slightly compared to the previous one. Also, the monetary overhang, which the ECB interprets as one leading indicator for future inflation, increased further due to persistently high money growth. And finally, following weak growth in the last quarter of 2005, the Euro Area economy has picked up in the first quarter of 2006 thereby making some further increases in interest rates likely.

We expect that the government deficit targets announced in the Stability Programmes will be met at the Euro Area level in 2006, with the aggregate deficit amounting to 2.4 per cent of GDP. Among the countries running deficits of at least 3 per cent of GDP in 2005, we expect the deficit targets in the Stability Programmes to be met in Germany and France this year and next year. This will not be the case however for Greece, Italy and Portugal. Although the aggregate Euro Area government deficit will fall to 2.2 per cent of GDP in 2007, this is above the figure of 1.9 per cent contained in the Stability Programmes.

The fiscal reforms that are proposed for Germany in 2007 may have significant economic effects so it is important to estimate the size of these impacts. Our analysis suggests that GDP will be 0.1 per cent lower in Germany in 2007 as a result of the reforms, with similar impacts in 2008 and 2009. The reforms will have a small but positive impact on GDP in 2006 (0.2 per cent) as a result of bringing forward of consumption in expectation of the VAT increase.

In discussing the Lisbon Strategy, we pose the following question: why has the Lisbon Agenda only limited success? One reason may be the institutional setting. The high priority that is given to fiscal and monetary stabilisation policies is reflected in the existence of sanctions if the members of the Euro Area do not meet the Maastricht criteria. In contrast, the low priority given to the Lisbon strategy can be seen in the absence of institutions to enforce the achievement of targets.

The "special topic" of this *EUROFRAME – European Forecasting Network* report considers some of the consequences of the Euro Area enlargement on

both the entrants to EMU and the monetary union as a whole. The following elements are included:

- A summary of how membership in a monetary union affects the participating countries.

- A review of the main challenges for the new member states, in particular their potential additional adjustment needs arising from the process of catch up growth.

- An investigation of the functioning of alternative adjustment mechanisms, such as the labour market, real wage flexibility and fiscal policy.

- Analyses of issues related to the preparation process are addressed, plus the implications for the functioning of the enlarged Euro Area.

Based on the analysis, a number of conclusions emerge. The new member states stand to gain substantially from the adoption of the euro. The lower interest rate in the Euro Area will promote catch up growth, while financial stability will be enhanced due to the elimination of exchange rate risk to the euro. Being a member of the Euro Area will make the financing of the large current account deficits easier and less costly. Furthermore it will eliminate the risk of a currency crisis following sharp reversals of capital flows.

Nevertheless, maintaining macroeconomic and financial stability during the growth process will remain a challenging task. A smooth process of catch up growth depends critically on higher growth and income being realised in a sustainable way, i.e. that the debt and credits can be serviced without major demand adjustment. The lower interest rate is likely to be beneficial for investment, but at the same time may challenge the capacity of the financial system to choose and monitor the most efficient investment projects. Financial supervision is all the more important given that foreign owned banks dominate the financial markets of the new member states and it may not be sufficiently clearly defined who regulates and supervises these banks.

Because of the small size of the new member states, the enlargement will affect the Euro Area's growth and inflation rates only to a limited extent. Both rates will nevertheless rise slightly without affecting the dynamics. Whereas the higher growth rate may not have any impact on the functioning of the Euro Area, the higher trend inflation rate might affect monetary policy. Of course, the impact will in all likelihood remain small, however the definition of price stability may have to be considered and marginally adjusted. European enlargement also makes it more crucial to rethink economic policy in Europe. If monetary policy cannot react to specific cases, it is necessary to reconsider the fiscal policy framework including the *a priori* set public finance targets. This might reduce the risk that not all countries benefit from the common monetary policy in the same way.

1. OUTLOOK FOR THE EURO AREA

1.1 Overview

Following general sluggishness in the Euro Area growth performance in recent years, 2006 is forecast to bring about an improved performance with a GDP growth rate of 2.2 per cent. This is the fastest rate of expansion since the year 2000. The composition in growth is also expected to differ from recent years. In particular, domestic demand is now expected to contribute relatively more strongly to the growth performance in 2006, with both consumption and investment posting gains. Stronger growth should continue into 2007, although at a slightly slower pace of 2 per cent.

Table 1.1: Summary of Key Forecast Indicators for the Euro Area

	2001	2002	2003	2004	2005	2006	2007
Output Growth Rate	1.9	1.0	0.7	1.8	1.4	2.2	2.0
Inflation Rate (Harmonised)	2.4	2.3	2.1	2.1	2.2	2.2	2.2
Unemployment Rate	7.8	8.3	8.7	8.9	8.5	8.1	7.8
Govt. balance as % of GDP	-1.9	-2.6	-3.0	-2.8	-2.4	-2.4	-2.2

The context in which our forecast is set includes the following features. The World economy is expected to continue growing strongly in 2006 and 2007, with growth rates of 4.7 per cent and 4.4 per cent forecast respectively. All the major economies will contribute to this performance. The United States, although slowing, is forecast to grow by a still respectable 3 per cent in both 2006 and 2007, Japan is forecast to grow by 2.7 per cent in 2006 and 2.1 per cent in 2007 while the corresponding figures for China are 9.2 per cent and 8.2 per cent respectively. Additional features of the overall context include a slight easing in oil prices, a gradual increase in Euro Area interest rates and relative stability in the euro-dollar exchange rate.

As regards the two largest economies of the Euro Area, our forecast includes the following: GDP growth in Germany is expected to rise to 2.3 per cent in 2006 before falling back to 1.5 per cent in 2007; for France, the corresponding figures are 2.2 per cent and 2 per cent; for Germany, the slowdown in 2007 is to some extent related to proposed fiscal reforms that will be introduced in 2007, which are explored in depth below.

1.2 Global Outlook

1.2.1 KEY DEVELOPMENTS

Table 1.2 reports EUROFRAME-EFN forecasts for GDP growth in major regions in autumn of 2005 and spring of 2006. The outcome for world growth in 2005 was stronger than we anticipated six months ago. This reflects stronger

growth both within the OECD (in the US, the Euro Area and especially Japan), as well as outside the OECD (especially in China). The upward revision to Chinese growth reflects an historical revision of the national accounts data, which raises growth in China by an average of 0.5 percentage points per annum between 1993 and 2004. Partly due to the high growth in 2005, we have also revised our projection for world growth in 2006 up by 0.4 percentage points since our October forecast. While the outlook for North America is slightly weaker than expected in our previous forecast, this is more than offset by stronger growth in the Euro Area and Asia.

Table 1.2: GDP Growth Forecasts in Autumn 2005 and Spring 2006

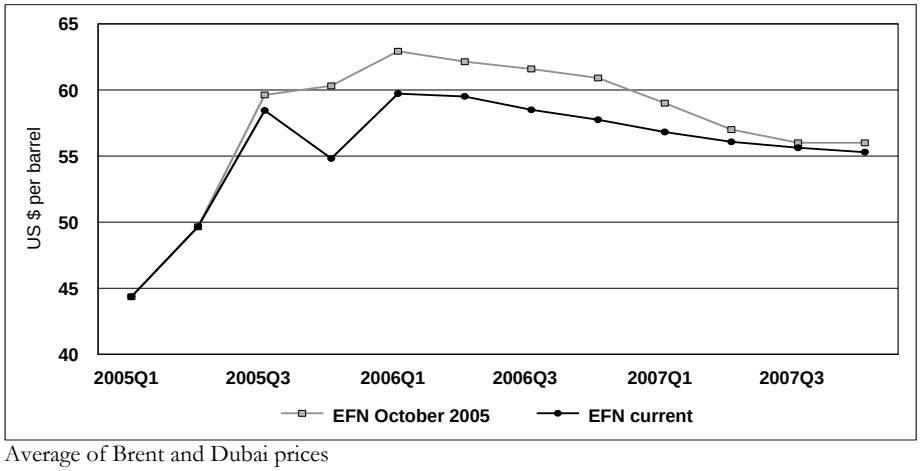
	World		OECD		NAFTA		Euro Area	
	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring
2005	4.2	4.6	2.6	2.8	3.3	3.4	1.2	1.4
2006	4.3	4.7	2.7	3.0	3.2	3.0	1.8	2.2
2007	4.3	4.4	2.6	2.7	3.0	3.1	2.0	2.0

Below we discuss some of the key developments in commodity and financial markets underlying our current forecast.

OIL PRICES

Oil prices rebounded in the first quarter of this year with Brent crude reaching over 60 dollars per barrel, following a temporary dip to around 55 dollars per barrel in November last year[1], as geopolitical issues in Iran and Nigeria, coupled with cold weather in Russia and cyclones in Australia, curbed crude supply. Nonetheless, compared to the extremely tight market condition in the immediate aftermath of Hurricanes Katrina and Rita during September 2005, current oil market conditions are somewhat more subdued. Our current projections for the oil price are therefore slightly lower than that in our previous forecast in October last year, as seen in Figure 1.2.1.

Figure 1.2.1. Oil Price in the Euro Area



Average of Brent and Dubai prices

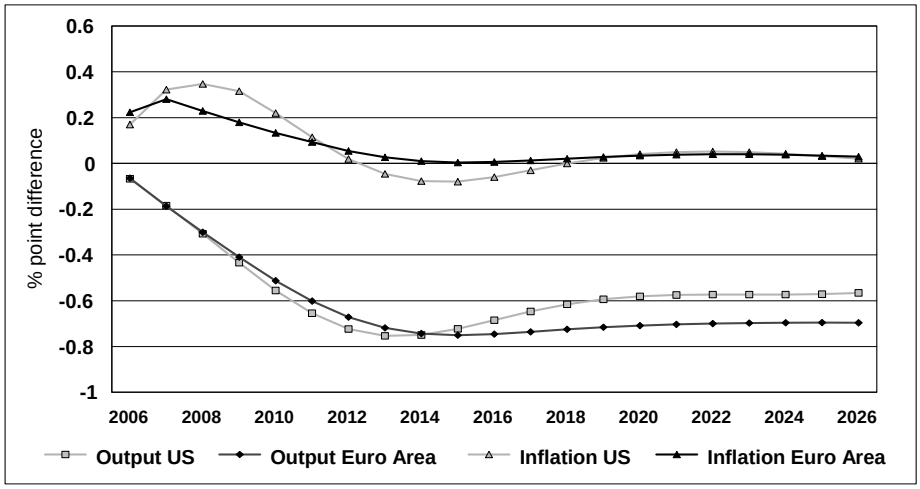
We continue to expect the oil price, measured as an average of Brent and Dubai prices, to remain above 55 dollars per barrel over our forecast horizon through 2007. As in 2005, the oil price is expected to be supported over the next 2 years by rapid growth and industrialisation in large emerging economies,

[1] The dip occurred due to the coordinated release of government controlled emergency inventories by IEA member countries.

particularly in Asia whose growing share in world output is also raising the oil demand of the world economy as a whole. Furthermore, a thin margin of spare oil production capacity is expected to continue into 2007 despite new supplies from both non-OPEC and OPEC countries, as existing production comes close to its short-term capacity while some existing fields, e.g. the North Sea, suffer from declining yields. Rising crude oil stocks, which are close to five-year highs, will do little to dampen the oil price given the lack of spare capacity in oil production. Capacity utilisation in global refining has reached its highest level in three decades. This limited capacity coupled with continued geopolitical instability in major oil producing regions will likely lead to volatile price movements in the next two years.

The impact of a rise in oil prices differs significantly across countries, and depends upon factors such as the oil (and gas) intensity of output, the speed of reaction of the wage-price system, the role of expectations[2], the response of the monetary authorities, the export exposure to oil producing markets and the speed at which oil revenues are recycled back into the global trading system. In terms of inflation, the negative effects of higher oil prices tend to be felt less acutely in the Euro Area than the US as the Euro Area is a less energy intensive economy. Figure 1.2.2 shows the impact of a $10 rise in oil prices on the level of output and inflation in the Euro Area and US.

Figure 1.2.2. Impact of a $10 rise in oil price on output and inflation



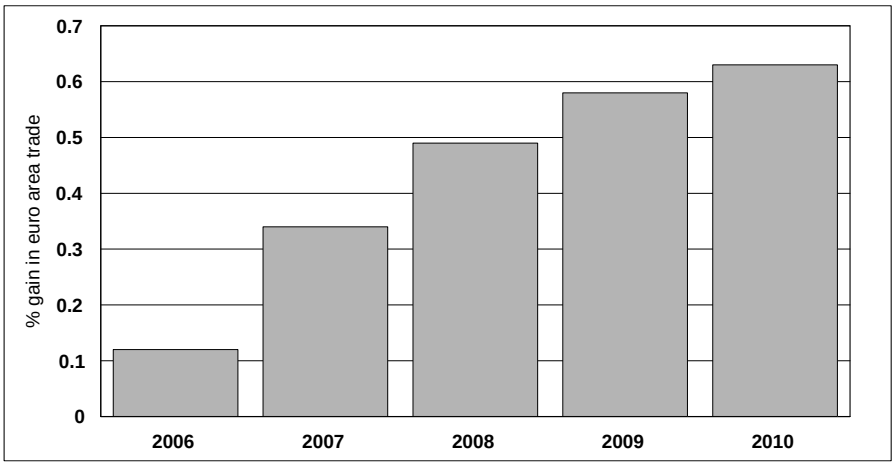
On a global level, the increased purchasing power of oil exporting economies in response to an oil price rise should largely offset the loss in purchasing power of oil importing countries, assuming these revenues are recycled relatively quickly. The initial impact of a rise in oil prices on oil exporters is an improvement in the current account balance, as the price of exports rises relative to the price of imports. OPEC's current account balance as a per cent of GDP improves initially by 1.1 percentage points, while net foreign assets as a percentage of GDP rise by 6 percentage points after ten years.

This improvement in the stock of net foreign assets raises the financial wealth of oil exporting economies, and this in turn raises domestic demand. Rising domestic demand pushes import growth up, and this supports export growth in the economies that export to OPEC and other oil exporting nations. We have found structural differences in import behaviour amongst oil exporters before and after 1990, reflecting the slower build up of imports that we saw in

[2] The links between inflation, wages and expectations are analysed in section 1.4.1.

the 1970s and 1980s before infrastructure improved in the oil exporting countries in response to higher revenues. In the current episode of oil price increases, oil revenues have thus far been recycled relatively rapidly, as they were in the early 1990s. Import volume growth has outstripped export volume growth in OPEC, Russia and Canada since 2003. We expect import volumes to continue to rise, and in our simulations money is recycled relatively rapidly. As the Euro Area conducts a relatively large share of trade with the oil exporting countries, this leads to a rise in Euro Area world trade share of over ½ percentage point after 5 years.

Figure 1.2.3. The rise on Euro Area world trade share, per cent gain in world trade share ($10 per barrel price rise)



INTEREST RATES

In order to combat rising inflationary pressures, monetary tightening remains underway in the US. The Federal Open Market Committee has raised the target for the Federal Funds rate by ¼ point at each of its meetings since June 2004, to reach 4.5 per cent in January 2006. This reflects a cumulative rise of 350 basis points. The ECB has also raised rates by 50 basis points since our last forecast, having held the interest rate on the main refinancing operations in the Euro Area stable at 2 per cent since June 2003. We have seen a similar rise in Swedish rates, while rates in the UK remain unchanged following cuts introduced last summer. The quantitative easing measures have been lifted by the Bank of Japan and rates are expected to rise gradually over the next two years. The key interest rate assumptions underlying our forecast projections are reported in Appendix Table 5. Our interest rate projections are somewhat higher than we expected 6 months ago. Figure 1.2.4 plots our current projections against projections underlying our October 2005 forecast. We see rates roughly ½ percentage point higher in the US and the Euro Area by the end of 2006 relative to our last forecast. This reflects a stronger outlook for the Euro Area and rising inflation expectations in the US.

Figure 1.2.4: 3-Month Money Market Rates

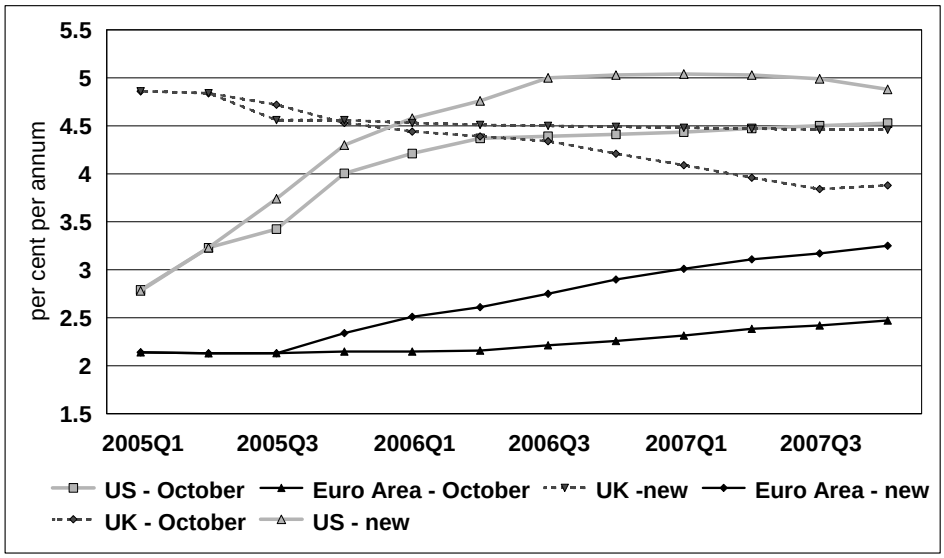
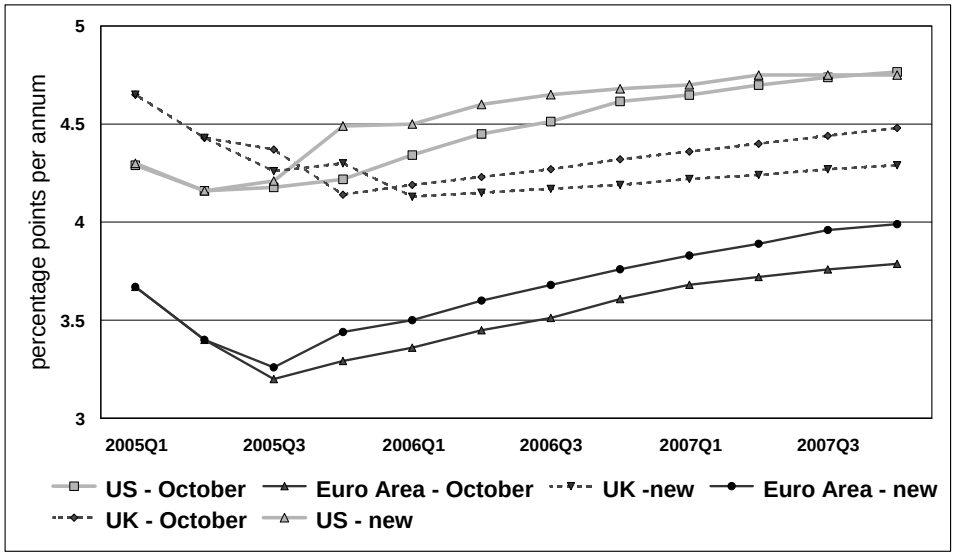


Figure 1.2.5: 10-year Government Bond Yields

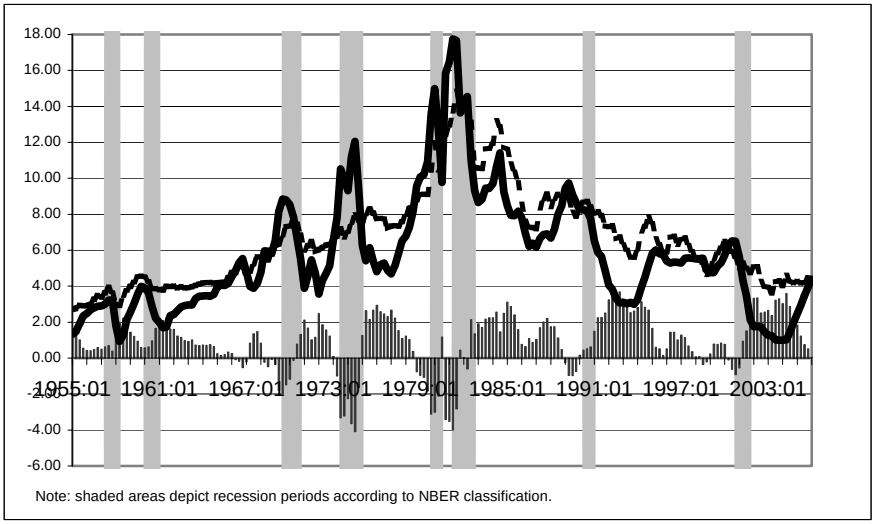


Long-term interest rates have also risen slightly, but remain very low. Figure 1.2.5 illustrates the revision to long-term interest rate projections underlying our current forecast. They have risen by about 0.2 percentage points in the US and the Euro Area since October, but remain largely unchanged in the UK. The rise in short-rates relative to long-rates has introduced a flat and even temporarily negative yield curve in the US, and the implications of this are discussed in Box 1.1 below. There exist a number of tentative explanations for the current low long-term interest rates, and we discussed some of these issues in our last report. In Box 1.2 we focus on the role that a rapidly expanding China may play in low global interest rates.

Box 1.1: Does the Flat Yield Curve Suggest a Recession is Coming in the US?

The yield spread – the difference between the long-term and the short-term interest rate – is widely discussed as a leading indicator for economic activity. While the yield spread does not affect economic activity in itself, in contrast to the *level* of short-term or long-term interest rates, it may contain information about market expectations of future changes in inflation and real interest rates, which may in turn be associated with fluctuations in real output.[3] Historically, for the United States, there has been a reliable relationship insofar as a flat or negative yield spread has consistently been followed by a recession or at least a significant slowdown in real GDP growth (Figure A).[4] Against this background, developments in the bond markets seem to signal that the US economy will start to slow during the next one or two years.[5]

Figure A: Interest rates, the yield spread and recession periods in the United States



Note: shaded areas depict recession periods according to NBER classification.

Despite the drop in the yield spread, EUROFRAME-EFN projects US economic growth to stay high. The main reason why we think the current situation differs from past experience is the exceptionally low level of long-term interest rates associated with the current term-structure. Long rates have not reacted to the rise in the short-term interest rate, and the yield curve has flattened at a level of short-term interest rates that are generally regarded as neutral, or even slightly expansionary, whereas in previous episodes of yield curve inversion monetary policy was tight. For the current low long-term interest rates numerous explanations have been advanced including: high demand from pension funds in Europe; regulatory changes for insurance companies in Europe and the US, which favour the investment in bonds over investment in other assets to achieve a better matching of the durations of assets and liabilities; demand from Asian central banks recycling capital inflows to prevent appreciation of the home currency,

[3] Arthuro Estrella, The Yield Curve as a Leading Indicator: Frequently Asked Questions, Federal Reserve Bank of New York, October 2005.

[4] For an empirical assessment see A. Estrella, A.P. Rodrigues, and S. Schich (2003). How stable is the predictive power of the yield curve? Evidence from Germany and the United States. Review of Economics and Statistics 85(3), 629-644.

[5] The yield curve is a significant predictor for US economic activity not only 4 quarters ahead but also 8 and even 12 quarters ahead .

which temporarily was responsible for a huge share of demand for US long-term government bonds; and excess liquidity in the international financial system caused by the strong monetary expansion during the period of very low interest rates following the burst of the IT-bubble, which has reduced risk premia in various asset markets.

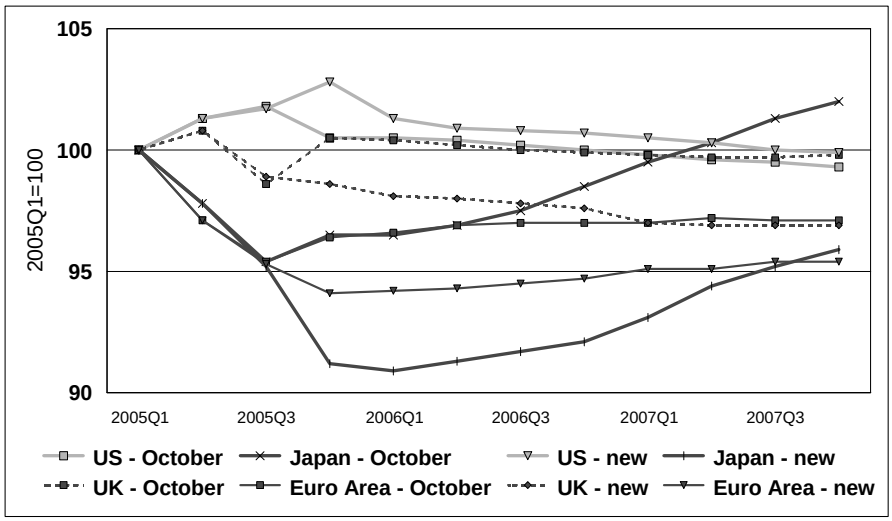
While quantitative analysis based on the yield curve suggests that there is a substantial chance of the US slipping into recession in the near future,[6] professional forecasters, who should take into account a broader set of information, are much more optimistic about the US economy.

EXCHANGE RATES

The euro nominal effective exchange rate rose sharply in 2002 and 2003, and now stands roughly 22 per cent higher than in early 2002. The strong exchange rate has adversely affected competitiveness and has been an important factor behind weak export growth in several Euro Area economies. However, it also reduces the cost of commodities, such as oil and manufacturing equipment, which are priced in US dollars, easing costs to manufacturers, and has helped keep under control the inflationary pressures that were emerging in the Euro Area until 2002.

While the euro remains strong, we have seen a modest depreciation since October, and the exchange rate assumptions embedded into our forecast see the euro about 2½ per cent weaker than anticipated in our last Report. Figure 1.2.6 shows our October exchange rate projections compared to our current projections. Clearly the most significant shift has been in the Japanese yen, which is roughly 6 per cent weaker than anticipated in October. This will support the re-inflation of Japanese prices and raise the contribution of the external sector to growth in Japan.

Figure 1.2.6: Effective exchange rates



[6] In its monthly bulletin from February 2006 the ECB presents recession probabilities for the US economy based on a quarterly probit model, in which the likelihood of a recession is explained by the preceding four values of the term spread. According to the analysis this probability increases sharply during 2006.

EQUITY PRICES

Equity prices have risen in all the major economies over the last six months. Figures 1.2.7 and 1.2.8 compare our October projections to our current assumptions for equity prices. While we have seen a rise of about 10 per cent in the US and the UK, share prices have risen dramatically in Japan, by more than 35 per cent.

Figure 1.2.7: Equity Prices in US, UK and Japan

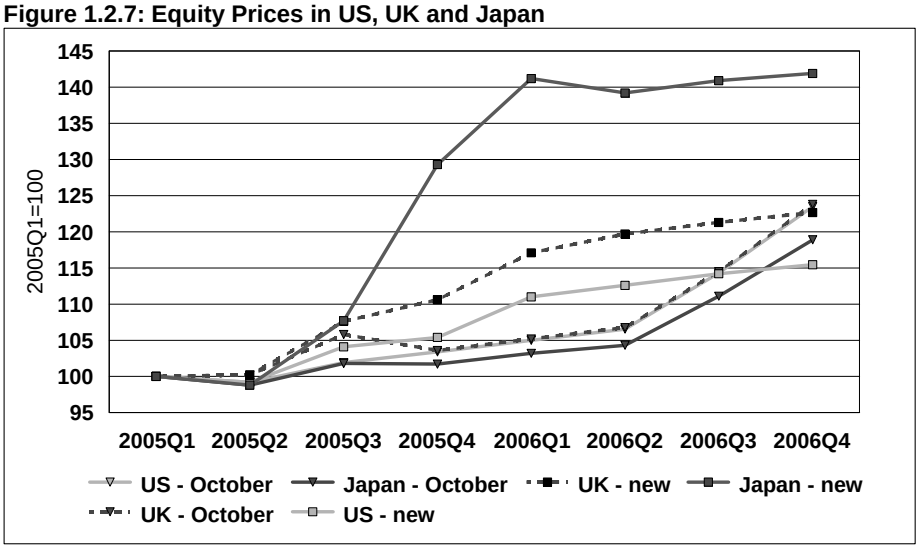
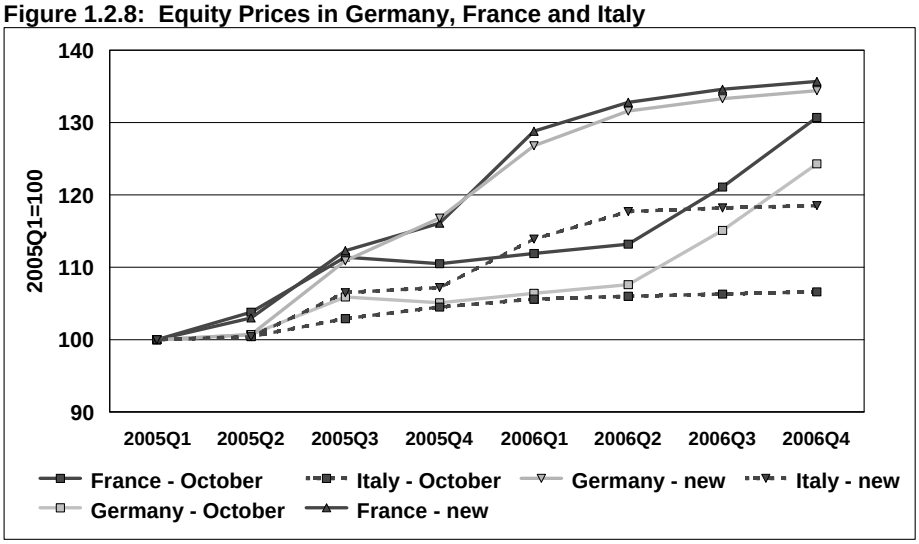


Figure 1.2.8: Equity Prices in Germany, France and Italy



Share prices have also risen in the Euro Area. They are up by nearly 20 per cent in Germany, Belgium, Greece and Austria, but have moved by less in France, Italy and the Netherlands. A rise in equity prices raises the financial wealth holdings of consumers, and therefore has a direct impact on consumer spending. They may also affect investment, although the evidence of a direct impact on investment in the Euro Area is limited. The feed through of equity price rises to output is relatively gradual, and the magnitude of the impact is modest. Al-Eyd *et al* (2006)[7] estimate that a unilateral 20 per cent rise in share prices in Germany would raise German output by 0.1 per cent after 2 years.

[7] Al-Eyd, A., Barrell, R. and Holland, D. (2006), 'The role of financial markets' openness in the transmission of shocks in Europe', presented at FINPROP Policy Conference, Brussels, February.

The impact of a global shock is more significant, and if all global share prices rise 20 per cent we would expect to see German growth rise by about 0.3 percentage points for two years, reflecting mainly the impact of stronger growth in the US on exports from Germany.

1.2.2 EXTERNAL ENVIRONMENT

In 2005, world economic growth remained strong with the growth rate of global output at 4.6 per cent. The Euro Area remained the weak spot in the world economy in an environment of robust expansion elsewhere. This picture is going to change slightly going forward with US growth decelerating from 3.5 per cent to 3 per cent and the Chinese economy losing some of its momentum, while Euro Area growth is going to accelerate at around 2.2 per cent in 2006. Total world output growth is projected to increase slightly this year to 4.7 per cent before slowing to 4.4 per cent in 2007.

North America

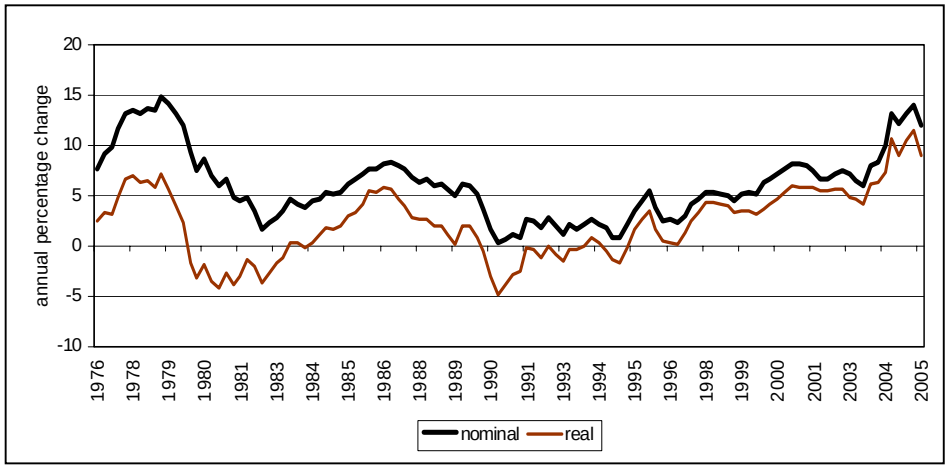
Output growth in North America slowed down in 2005 from the rapid pace seen in 2004. However real GDP still rose by 3.4 per cent, slightly more than the average over the past 10 years, in spite of significant headwinds from higher energy prices and the negative impact of two major Hurricanes. We expect growth in North America to slowdown further to around 3 per cent this year and next, mainly driven by reduced momentum in the United States.

The marked slowdown in US growth in the fourth quarter proved to be temporary. It was mainly due to sluggish private consumption which was depressed by a temporary loss in purchasing power due to higher prices for gas and oil products and the sharp reduction of special incentives to buy automobiles by the major car manufacturers. Both effects have diminished towards the end of the year and into 2006, with energy costs having fallen significantly from the peaks seen in September and October and car sales having recovered to healthy levels. In addition unseasonably warm weather over much of the winter has supported activity and indicators point to a strong rebound of the US economy in the first quarter of 2006.

Despite the relatively strong start to the year, we expect growth in the US to moderate over the forecasting horizon. The main reason is that the outlook for private consumption, the main driver of economic growth over the past years, has clouded. Over recent years, consumption has almost consistently outpaced disposable income growth, and the personal savings rate declined to negative values in the course of last year. With employment growth and real wage increases having been modest in comparison to previous upswings, a major source of strength in personal consumption has been low interest rates and wealth effects from rising house prices. Both of these factors are expected to fade over the forecast horizon. With long-term interest rates having bottomed and expected to gradually increase over the coming quarters, the potential for releasing purchasing power through mortgage refinancing activities is greatly reduced. House prices have seen a sustained upswing for 10 years now and house price inflation has accelerated to levels last seen in the late 1970s. According to estimates in the literature any overvaluation in the housing market was generally found to be modest around 2004. However, given developments in real disposable income, housing stock supply and real interest rates, the most recent upsurge in prices appears to have resulted in an overvaluation of at least 10 per cent. There are already indications that house prices are slowing. We expect the necessary correction in US house prices to be gradual, effected through slower nominal house price inflation for several years, rather than a sharp drop in nominal house prices. Nevertheless, housing wealth should increase at a much slower pace this year and next, which will

bring the growth in real private consumption down to slightly less than 3 per cent from 3.6 per cent last year, despite a notable acceleration in real disposable income stemming from robust employment growth and slightly higher increases in average earnings.

Figure 1.2.9: Annual House Price Growth in the United States



Business investment is supported by high capacity utilization, high profitability and strong balance sheets and should continue to expand swiftly, although we expect some moderation from the fast pace seen last year as a result of higher interest rates and a less bullish outlook for private consumption. Slower domestic demand growth will be reflected in slower import growth, but exports are also expected to slowdown reflecting the appreciation of the US-dollar in the second half of last year. Real GDP is forecast to rise by 3 per cent in both 2006 and 2007. Consumer price inflation increased last year to 3.4 per cent driven by the strong rise in energy prices. We project inflation to moderate only gradually as, given the high rate of capacity utilization in the economy, we expect some of the rise in the oil price to feed through into wages. The current account deficit is projected to remain above 6 per cent of GDP; an abrupt devaluation of the dollar, which would be part of a current account adjustment scenario, is not assumed in the baseline forecast. It continues, however, to be a major risk to our forecast.

Asia

Economic growth in Asia has gathered strength in the course of last year with the major economies Japan, South Korea and China all benefiting from a domestically driven upturn. Most notably, the expansion in Japan proved to be much stronger than expected. Real GDP in the fourth quarter again rose at an annualised rate of more than 5 per cent, raising output 4 per cent above the level one year before. The upturn is mainly driven by strong investment growth and increasingly also by private consumption which is benefiting from rising employment and higher real wage growth. Exports remained brisk, with exports to China and other Asian economies continuing to rise rapidly and exports to the US picking up in the course of the year reflecting the devaluation of the yen vis-à-vis the dollar. Rapid growth in China continued in the second half of 2005 despite a notable deceleration in export growth from 42 per cent in nominal terms at the start of the year to 18 per cent in December. Real GDP in the fourth quarter was again up by almost 10 per cent from the same quarter in the previous year. Accelerating imports in China helped growth to recover in the other Asian economies from the weakness experienced in the second half of 2004 and in early 2005. But domestic

demand also strengthened in most countries on the back of accommodative monetary and fiscal policies.

The outlook for Asia remains favourable. In Japan, the growth momentum in domestic demand is expected to remain intact, although some moderation is expected for 2006 and 2007. The Bank of Japan has reacted to the improved outlook for growth and the apparent reduction in deflation at the level of consumer prices and has abandoned its so-called quantitative easing measures. While this will lead to a contraction of the monetary base, the impact on the real economy will be minimal as interest rates in the money market will still be kept at close to zero for some time to come. The Bank of Japan has also said it will continue to buy large amounts of government bonds, a move which has so far been successful and is intended to prevent an adverse reaction in the bond markets. We expect that short-term interest rates will start rising in the second half of this year, but only very gradually. Consequently, monetary policy in Japan is expected to remain accommodative this year and also next. Real GDP is projected to rise by 2.7 per cent this year and by 2.1 per cent in 2007.

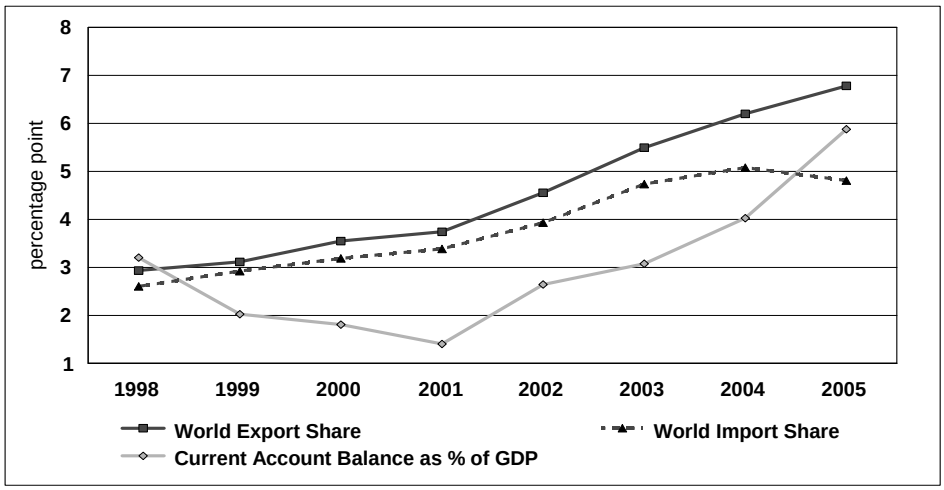
The improved growth prospect in Japan, coupled with the more flexible exchange rate regimes adopted by Asian central banks, could help Asian newly industrialised economies to break away from the export led economic model. With monetary conditions remaining loose in the region, as central banks have largely lagged inflation to keep real interest rates low in order to promote private consumption and investment, we expect the recovery in domestic demand to be sustained. In China, the move in the exchange rate regime from a dollar peg to a managed floating regime based on a currency basket which was implemented last summer has led to only modest changes in the value of the renmimbi. The revaluation against the dollar to date amounts to only 4.5 per cent. With export growth currently having lost momentum, we do not expect the government to tolerate a further significant appreciation of the renmimbi for the time being. The strong rise of investment has continued and the potential build-up of overcapacity is increasingly a concern not only in the field of property development. The government is reacting by targeting the allocation of credit away from these sectors. On the other hand, the government has highlighted the promotion of domestic demand as one of the most important policy objectives in the recent 11th five-year plan. To this end it has announced increased expenditures for social security and rural development as well as a further expansion in investment in infrastructure. We expect growth of the Chinese economy to slow modestly to some 9 per cent in 2006 and slightly more than 8 per cent in 2007.

Box 1.2: The impacts of the growth of China on world inflation and interest rates

The remarkable growth of the Chinese economy over the last two decades or so led many observers around 2000 to ask whether it had contributed to lower global inflation by increasing the supply of manufactured goods. Subsequently the strength of demand in China has led to some upward pressure in oil and other commodity prices, but overall it is still widely believed that Chinese competition has been a restraining factor in price inflation. We can gauge the growth of the economy by looking at its share of world trade and its current account surplus. Imports have risen less rapidly than exports, and hence the current account surplus has grown. This pattern both increases the net supply of goods to the world economy and increases the scale of saving. Over the last 2 years we have seen slower import growth than we might have expected, in part as a result of the depreciation of the dollar linked renminbi, and as a result inflationary pressures began to emerge in China at the start of 2005. The gap

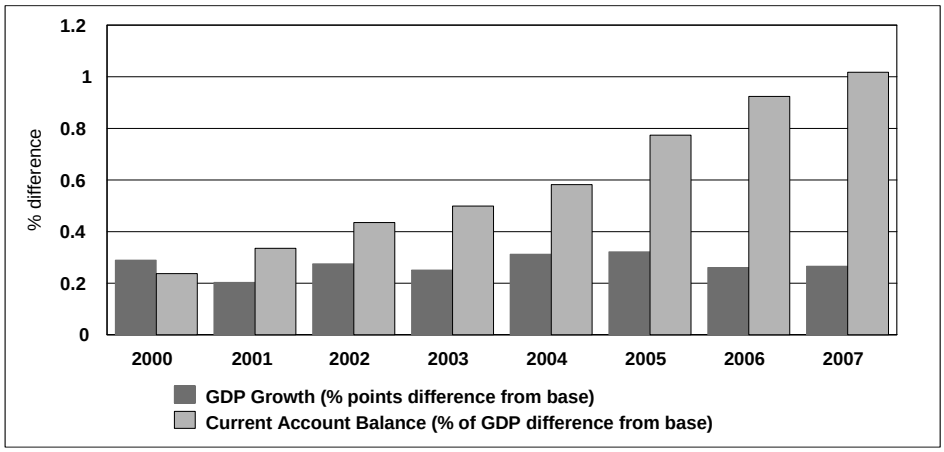
between imports and exports is now larger than in the past, and it may adjust as the economy grows and the impact of the recent appreciation is felt.

Figure B: Chinese Trade and Current Account Balance



Source NIESR database

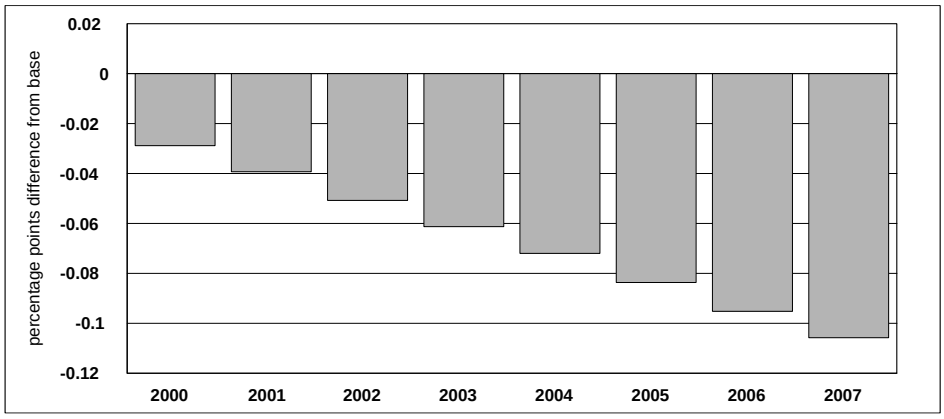
Figure C: Impact on China of an increase in Chinese Exports (0.8% extra growth)



We can analyse the impacts of this increase by shocking our model of China by increasing its growth, driven by an increase in exports. We raise Chinese export growth by around 0.8 per cent a year from 2000. This raises Chinese growth by a quarter of a per cent a year and increases the current account surplus by 1 per cent of GDP by 2007. As the rise in Chinese output is supply driven there is little impact on the output gap or on inflation. Imports would tend to rise with output. The impact on the rest of the world of the increase in exports depends on the monetary policy regime in place, but as long as Central Banks react relatively quickly to offset lower inflationary pressures and cut interest rates, then inflation will only be marginally reduced. If Central Banks are not fully aware of the increase in world supply then for a period inflation might be below target, but we can reasonably assume that they have now recognised the impact of China on the world economy.

Central Banks can control the nominal rate of interest, and hopefully the inflation rate. In the medium term they have no role in determining the real interest rate, which is the outcome of the balance between saving and investment in the World economy. The increase in Chinese saving will put downward pressure on real interest rates everywhere, and by 2007 real long term rates would be 0.1 percentage points lower than they would have been for every 1 per cent of Chinese GDP increase in the current account surplus. Between 2000 and 2006 the Chinese current account surplus increased by 4 per cent of GDP, and we might expect this to have reduced world real interest rates by up to 0.4 percentage points.

Figure D: Impact of faster Chinese growth on OECD long real rate



Non Euro Area European Economies

Growth in European countries outside the Euro Area has generally exceeded expectations from last autumn. Upside surprises have been pronounced in the cases of Denmark and Sweden, where real GDP growth came in around one half of a percentage point higher than expected. A similar upside is evident for the new member states where real GDP growth for 2005 is now estimated to have amounted to 4.6 per cent, compared to a forecast of 4.1 per cent made in the previous report. On the other hand, growth in the United Kingdom was slightly disappointing at 1.8 per cent.

The sharp slowdown in GDP growth in the United Kingdom from 3.2 per cent in 2004 was led by a deceleration in growth in consumer spending, compounded by a softening in growth in private sector investment volumes. Consumer spending was restrained by moderate growth in household real disposable incomes, in part a result of the rise in the tax burden on incomes over the past two years and the pick up in inflation in 2005. At the same time, the housing market slowed significantly and with it the rate of increase in housing wealth, one of the supports of buoyant consumer expenditure in recent years. The slowdown in the housing market may also help to explain weak housing investment last year, although housing investment in the United Kingdom is best described as volatile and often appears unrelated to developments in house prices. Business investment has turned out weaker than anticipated, but it is difficult to describe current investment activity as exceptionally weak, as discussed in section 1.4.1. The outlook shows real GDP growth in the United Kingdom picking up this year and next, supported by a small pick up in consumer spending and more robust investment and export demand. Inflation is expected to remain close to target, contained in part by strong labour force growth, following the expansion of the European Union in 2004, and rising unemployment. Wages are also likely to be restrained by the need for firms to make stronger productivity gains following exceptionally weak productivity growth last year.

The Scandinavian economies Denmark and Sweden recorded strong growth in 2005 of 3.4 and 2.8 per cent, respectively, fuelled by buoyant private consumption and a marked acceleration in private investment. We expect growth in both countries to remain robust, with the rate of increase in GDP in 2006 accelerating further in Sweden and diminishing somewhat in Denmark where the upturn seems to be maturing. Unemployment is expected to come down further, reaching levels of 4 per cent in Denmark and 4.7 per cent in Sweden, respectively, in 2007 on a standardised basis indicating that there will be little slack in these economies by the end of the forecast horizon. Consequently, we expect underlying consumer price inflation to pick up somewhat this year and next.

In 2005 GDP growth in New Member States (NMS) continued to grow rapidly (4.6 per cent), though slightly less dynamically than in 2004 when a set of one-off effects, mostly related to EU accession, took place.[8] In most countries strong investment and export dynamics led the growth in 2005. The biggest economy among the NMS, Poland, recorded the lowest growth rate as a consequence of the slow down in consumption and stockbuilding, although it should be noted that growth accelerated during the year. Robust growth was recorded in the Czech Republic and Slovakia (preliminary estimates of 6.0 per cent for both), in the first case driven by positive net exports and – in the second case – by investment and private consumption. Baltic countries saw further acceleration in economic growth to 7-10 per cent, on the back of strong domestic demand.

We expect the rate of growth in NMS during 2006 and 2007 to be maintained (4.7 per cent and 4.6 per cent respectively). EU funds will provide a stable element in investment demand though it is based on the expectation that the majority of assigned funds of the 2004-6 EU budget will be utilised. Poland will see some acceleration in domestic demand on the back of a resumption in household consumption (along with an improvement in labour market conditions and wage dynamics) and some improvement in investment. Due to faster growth in imports, net export will make less of a positive contribution to growth. We expect GDP growth in Slovakia (due to less robust investment demand) and Czech Republic (due to some worsening of foreign trade position only partially offset by stronger domestic demand) to slow down a little in coming years. We also expect growth in Hungary to be around 4 per cent with stable consumption growth supported by the VAT reduction, but some deceleration in investment.

Inflation in NMS has been low in recent months, on average registering levels below those in the Euro Area since June 2005. Three countries, i.e., Latvia, Estonia and Slovakia stand out with inflation above 4 per cent due to the combination of administered and foodstuffs' price hikes. The outlook for 2006 looks very favorable with an average inflation at 2 per cent. Such a low level in the regional inflation is partly the result of currency-appreciation-driven deflation in non-energy industrial goods and very low inflation in foodstuffs in the biggest NMS. Inflation is projected to rise somewhat in 2007 to 2.5 per cent, or just above the Euro Area rate. The planned Euro Area entry by Estonia, Lithuania and Slovenia in 2007 may be a challenge only for Estonia, where in 2006 the expected HICP is just above the average for three lowest indexes in the European Union.

The Russian economy is still benefiting strongly from the high commodity prices. The rate of growth is, however, gradually diminishing, from 7.2 per cent

[8] See Chapter 3 of this report for an extensive discussion on NMS and entry to the Euro Area.

in 2004 to 6.4 per cent in 2005 and around 6 per cent in 2007, according to our forecast, as production is hampered by bottlenecks in infrastructure and increasing import penetration as a result of the relentless appreciation of the rouble. The real effective exchange rate has risen beyond the level that prevailed before the Russian crisis in 1998. However, with commodity prices firm, monetary policy effectively stimulative and fiscal policy expected to be loosened, we expect domestic demand to remain robust over the forecast horizon. Inflation is projected to remain relatively high. Strong monetary growth and a continuous rapid increase in wages is putting upward pressure on consumer prices. In addition, the reduction of inflation in the second half of last year was due to administrative price controls and did not reflect a moderation of underlying inflationary pressures. Therefore, there is a substantial upward risk to our scenario of a gradual decline in the rate of inflation.

1.3 Euro Area detail

We will begin this section by providing an overview of our forecasts for the Euro Area before looking at the three largest Euro Area countries and also focus on Finland explaining the reasons behind specific GDP growth patterns for 2005 and 2006. As part of the country-specific discussions, we will present an analysis of the potential impacts of the fiscal reforms that are planned for Germany in 2007. Also in this section, we provide details of the economic programmes being offered by the two coalitions facing each other in the Italian election.

EURO AREA FORECASTS

Following a period of sluggish growth, the Euro Area is showing signs of recovery and this is reflected in the GDP growth forecasts for 2006 and 2007. Growth in the final quarter of 2005 was weak at only 0.3 per cent, but we are forecasting a recovery to a stronger rate of 0.7 per cent in the first quarter of 2006. The EUROFRAME indicator released for the FTD also suggests rapid growth in the Euro Area in the first half of the year, as does the GDP indicator released by the European Commission. We expect this performance to be largely maintained through 2006 and so we forecast GDP growth of 2.2 per cent for this year. This is an upward revision to our previous forecast for 2006 of 1.8 per cent. For 2007, we forecast a slightly slower rate of GDP growth, 2 per cent. This is the same as the forecast contained in our autumn 2005 report.
The overall forecast for the Euro Area is strongly influenced by the forecast for Germany. The improvement in the Euro Area growth performance between 2005 and 2006 is mainly due to our forecast of an increase in the rate of growth in Germany. From a rate of 1.1 per cent in 2005, growth in Germany is forecast to rise to 2.3 per cent in 2006. However, growth in Germany is forecast to fall back somewhat in 2007, to 1.5 per cent. This largely explains our forecast of a slower rate of growth in the Euro Area in 2007 relative to 2006. The reason for the German slowdown in 2007 is elaborated upon below (see section 1.3.3 below) but here we can simply note that the proposed fiscal package in Germany in 2007 has some negative impact on growth.

A number of positive factors underpin this forecast. Investment is forecast to provide the largest proportionate increase in the components of demand. In 2006, investment growth of 4 per cent is expected. This is substantially higher than the 2.1 per cent figure for 2005 and the 2.8 per cent figure contained in our autumn forecasts. Much of the improvement can be traced back to Germany where business sentiment appears to be strong, thereby prompting an expectation of increased investment. The improved investment performance is expected to persist into 2007 with a growth rate of 3.5 per cent forecast. A further discussion of investment is provided in section 1.4.1.

Table 1.3.1 Euro Area Forecast[a]

	2001	2002	2003	2004	2005	2006	2007
Consumption	1.9	0.9	1	1.4	1.4	1.6	1.8
Private investment	-1.9	-3.1	0.6	2.1	2.1	4	3.5
Government expenditure	2.3	2.4	1.7	0.9	1.5	2.3	1.6
Stockbuilding[(b)]	-0.5	-0.2	0.2	0.4	0.1	0.1	-0.1
Total domestic demand	0.8	0.3	1.3	1.9	1.6	2.3	1.9
Export volumes	3.6	1.7	1.2	5.9	3.9	6.6	5.4
Import volumes	1.8	0.4	3	6.2	4.7	6.8	5.3
GDP	1.9	1	0.7	1.8	1.4	2.2	2
Average earnings	3.7	3.5	2.8	2.2	2	2.3	3.3
Harmonised consumer prices	2.4	2.3	2.1	2.1	2.2	2.2	2.2
Private consumption deflator	2.5	2	2	1.9	1.9	2.2	2.2
Real personal disposable income	2.5	1.6	1	1.6	0.6	1	1.8
Standardised Unemployment, %	7.8	8.3	8.7	8.9	8.5	8.1	7.8
Govt. balance as % of GDP	-1.9	-2.6	-3	-2.8	-2.4	-2.4	-2.2
Govt. debt as % of GDP	69.3	69.2	70.4	70.8	71.6	70.5	69.2
Current account as % of GDP	-0.3	0.8	0.5	0.6	-0.4	-0.7	-0.3

a GDP data shown in table are adjusted for working-day variation.
b change as a per cent of GDP.

Consumption and government spending are also forecast to contribute to the improved growth performance. Growth in consumption is forecast to rise from 1.4 per cent in 2005 to 1.6 per cent in 2006 and to rise again to 1.8 per cent in 2007. The contribution of net exports to overall growth will be somewhat muted. Although export volumes are forecast to accelerate due to growth in the global economy, so too are import volumes partly in response to the growth in consumption. The deficit on the current account is forecast to grow from 0.4 per cent of GDP in 2005 to 0.7 per cent in 2006, before easing again to 0.3 per cent of GDP in 2007.

In spite of the pick-up in growth, inflation is forecast to remain at a rate similar to recent years – 2.2 per cent for each of 2006 and 2007, on a HICP basis. This stability in the rate of inflation partly reflects the existence of spare capacity in the Euro Area economy. It also reflects the apparent non-emergence of second round effects from recent oil price increases. A third factor is the stability in inflation expectations that act to anchor actual inflation. While the German VAT increase in 2007 will work to increase inflation, this will be counterbalanced by other factors such as an easing in oil prices thereby leading to the stable rate. (In section 1.4.2 below, we provide a fuller discussion of inflation, expectations and wages.)

With regard to the labour market, the improved growth performance in 2006 and 2007 is forecast to be reflected in a reduction in unemployment in both of these years. Starting from a rate of 8.5 per cent in 2005, the unemployment rate is forecast to fall to 8.1 per cent in 2006 and then to 7.8 per cent in 2007. The unemployment rate falls can be explained mainly by economic growth.

Although the improved growth performance in 2006 is not reflected in the government balance, an improvement is forecast for 2007. For 2006, the government deficit is forecast to remain at its 2005 level of 2.4 per cent of GDP. However, this is forecast to be 2.2 per cent in 2007. The stability in the figure between 2005 and 2006 hides the fact that the deficits in both France and Germany are forecast to fall below 3 per cent in 2006. These improvements are partly offset by a further deterioration in the Italian

government deficit which is forecast to rise from 4.1 per cent in 2005 to 4.8 per cent in 2006.

The forecast is based on the following assumptions:

The oil price is projected to average nearly $59 per barrel in 2006, but will recede to average $56 per barrel in 2007.

The exchange rate between the US$ and the euro is expected to average $1.21 in 2006 and $1.22 in 2007.

The short-term interest rate in the Euro Area is projected to be 2.9 at the end of 2006 and 3.3 at the end of 2007.

The forecasts are based on data available up to 10th March 2006.

The assumptions for commodity prices, exchange rates and interest rates used in the forecast were constructed by consensus, as the average projections of the 10 member Institutes. These are broadly consistent with current financial market expectations and forward markets, as the majority of Institutes use this information in constructing their own forecasts.

GERMANY

Following a temporary slowdown in the fourth quarter of 2005, the German economy has regained momentum at the beginning of 2006. Leading indicators point to a rather strong rebound in the first quarter of the year. Manufacturing orders improved markedly in the second half of last year with foreign orders having been particularly strong. Survey data not only confirm a favourable business climate in manufacturing but increasingly suggest that the situation has improved in most other areas of the German economy. Most notably, indicators such as retail sales suggest that the long-lasting weakness in private consumption might have come to an end.

The outlook for 2006 is favourable. The upturn will continue and real GDP should rise by 2.3 per cent (on a working day adjusted basis),[9] the highest rate of growth recorded since 2000. Unlike previous years, the expansion will not be driven mainly by foreign demand, although there will again be a sizeable positive contribution to growth from net exports. Investment growth is projected to accelerate to 4 per cent, up from an almost flat reading in 2005, as firms have been successful in repairing their balance sheets and restoring profitability. In addition, the multi-year recession in the construction sector is coming to an end. Private consumption is also likely to pick up after the prolonged stagnation in the years 2002–2005, and should grow by around 1 per cent on the back of rising employment and improved consumer confidence.

In 2007, real GDP growth is projected to slow down to 1.5 per cent. One factor behind slower growth is the implementation of a fiscal package consisting of a rise in the regular VAT rate by 3 percentage points and a cut in social security contributions by a net of 1.4 percentage points. This will raise consumer price inflation and dampen growth (see Box 1.3 for an evaluation of the package). In addition, less momentum in world trade reflecting somewhat slower growth outside the Euro Area is also expected to dampen the rise in production, as is the gradual increase in interest rates. Furthermore, the

[9] There is a negative impact from less working days than in the previous year both in 2006 and 2007. This will reduce the unadjusted annual figure, which is reported by the German federal statistical office, by 0.2 per cent in each year compared to the adjusted figures which are employed in this report.

positive effects on investment of new tax rules for depreciation introduced in 2006 will fade. Finally, there is a small positive impact on growth in 2006 from hosting the soccer world cup, mainly from a temporary boost to tourism. CPI inflation is forecast to rise to 2.3 per cent in 2007 from 1.6 per cent in 2006. The unemployment rate should continue to decline to 8.3 per cent, following a substantial drop from 9.5 to 8.6 per cent in 2006. As discussions about the prospects for 2007 are generally dominated by the potential impact of proposed fiscal reforms in Germany it is useful to analyse these in some depth.

Box 1.3 An Evaluation of German Fiscal Package

Looking first at the details of the proposed measures, the German government plans to consolidate its budget by raising indirect taxes and reducing taxes on labour. The standard rate of VAT, which covers around 60 per cent of the VAT base, will be raised by 3 percentage points raising around €24.4 billion a year. The German statistical office has calculated that a rise in the regular VAT rate alone would raise consumer prices by 0.45 per cent arithmetically, i.e. with full pass through and no adjustments whatsoever. The package also includes a rise of the insurance tax by 3 percentage points, raising perhaps some €1.5 billion, and increasing the price level by perhaps 0.1 per cent. As a partial offset there is a lowering of the unemployment insurance contribution rate by 2 percentage points at a cost €14.5 billion. On the other hand there will be an increase in the contribution rate to public pensions by 0.4 percentage points (€3 billion) and to public health insurance by probably 0.2 percentage points (€2 billion). The budget balance is expected to improve by 0.4 per cent of nominal GDP in 2007 taking into account other measures.

It is useful to evaluate this package using NiGEM. In NiGEM, the increase in the regular VAT rate by 3 percentage points translates into a rise in the total indirect tax rate by just under 1 percentage point. The net reduction of social security contribution by 1.4 percentage points translates into a reduction of all direct (employer's and employee's) taxes on personal income by around 0.5 percentage points. The effects of the package depend, *inter alia*, on the role of expectations in the wage bargain, the reactions of the ECB to the rise in inflation and the speed with which a cut in employers' tax feeds into wages. In addition, a pre-announced increase in indirect taxes may induce consumers to bring forward consumption as the real rate of interest falls for one quarter by 4 percentage points. We assume in our simulations that wage bargainers are aware of the package and that this feeds into the short run dynamics of wages.[A] Employers' taxes are a substitute for direct taxes, and in the long run we assume the incidence of the tax does not matter, and will not affect wages. However, in the short run[B] employers will receive a benefit which reduces their costs and helps reduce the potential second round effects of the rise in indirect taxes. In addition it raises their profits, and hence their payouts to shareholders, helping support consumption.

We have simulated this package under a variety of assumptions. Our core results have no pre-emptive ECB reaction to the first round effects, and interest rates stay on our baseline until the second quarter of 2007. Wage bargainers are assumed to be forward looking, as are financial markets, and margins between producer and consumer prices are not assumed to absorb any of the price increase. We have also assumed that just over 1 per cent of a quarter's consumption is brought forward from 2007 into 2006. This latter presumption is based on the impacts of the pre-announced switches from direct to indirect tax in the UK in 1979 and recent German experience, where the evidence of potential impacts is mixed. A 1 percentage point rise in the basic rate of VAT in 1993 was associated with a rise in consumption of 3.5 per cent in the fourth quarter of 2002 and a fall of 2.5 per cent in the first quarter of 2003. However, a similar rise in April 1998 led to no apparent switching of consumption between

quarters. In the UK direct taxes rose by 3 percentage points when the standard rate of VAT was raised from 8 to 17.5 percentage points, and around 4 per cent of consumption was brought forward by one quarter. The impacts of these switches on GDP were much smaller as they were absorbed into stock building and imports, and we expect this to be repeated.

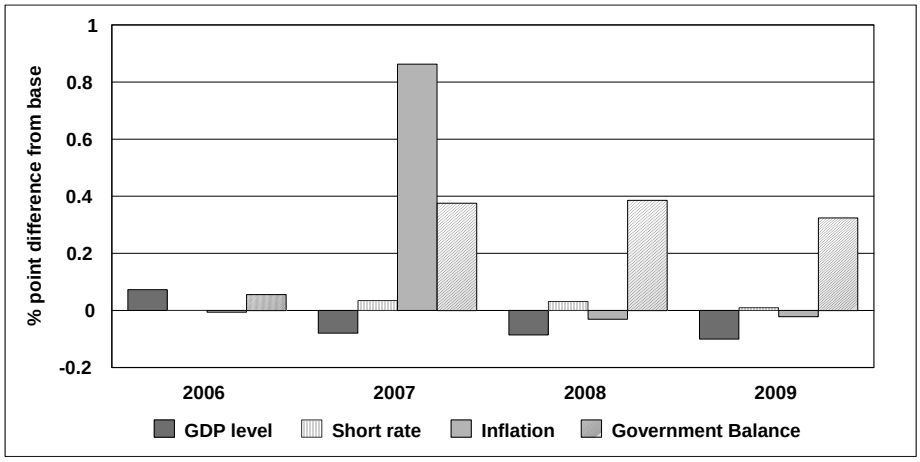
In our full package, consumer prices rise by under 1 per cent in 2007, with limited second round effects, as we can see from the chart. Output rises marginally in 2006 and is lower than it would otherwise have been by 0.1 percentage points in 2007.[C] The ECB raises rates in the second quarter of 2007 to help offset any second round effects of the increase in prices. Government borrowing declines by 0.4 per cent of GDP, and in the medium term the budget returns to our baseline with higher indirect and lower direct taxes. If the ECB were to react in 2006 in anticipation of the temporary rise in inflation in 2007, short-term interest rates would increase by 0.2 percentage points in 2006. This pre-emptive move would have little effect on inflation because it is temporary and hence exchange rates would not react. If there were no offsetting effects on employers' taxes then the impact on inflation would rise to around one percentage point, and the budget would improve by 0.6 per cent of GDP.

[A] In the long run real wages are determined by the growth of productivity and the level of equilibrium unemployment, but in the short run they may depart from this. Our equations are discussed in Barrell R., and Dury, K. (2003) 'Asymmetric labour markets in a converging Europe: Do differences matter?' *National Institute Economic Review* No. 183, January 2003.

[B] We assume a half-life of 3 years for the decay process, with all cuts in employers taxes eventually being passed on into wages.

[C] Other models employed (such as the one developed at the Kiel Institute, for example) estimate slightly higher negative effects on output. The relatively small effect in NiGEM may be related to the forward looking expectations implemented in the model, that lead to wages following prices more quickly and, consequently, less reduction purchasing power of households in the short term. In the current environment of relatively low bargaining power of unions in Germany, which are currently more concerned with preventing increased working hours and institutional reforms rather than increasing nominal wages, behaviour of wages might differ from the one in the model. Al Eyd, A., Barrell, R., (2005) 'Estimating Tax and Benefit Multipliers in Europe' *Economic Modelling* vol 22 pp 759-776investigate tax and benefit multipliers in NiGEM. They suggest that a balanced budget switch from direct to indirect taxes would raise output marginally as income would initially decline less when there is a rise in indirect taxes as compared to direct taxes rise, as some of the rise is absorbed into higher nominal wages.

Figure 1.3.1: Impacts of the German Tax Package



FRANCE

As with Germany, French GDP growth has been unexpectedly weak in the last quarter of 2005 as compared with signals given by survey data. GDP grew by a mere 0.2 per cent, driven down by weak industrial production, notably in the automobile industry. OFCE's quarterly GDP growth indicator based on survey data suggested, meanwhile, GDP growth at around 0.7 per cent in the last quarter of the year. This discrepancy between hard data and survey data is to say the least somewhat of a puzzle and leads us to be cautious on the profile for GDP growth at the turn of the year. Industrial production rose by 0.3 per cent in January on a monthly basis and survey data suggest robust growth at the beginning of the year. Hence OFCE's indicator suggests GDP growth of around 1 per cent both in the first and second quarters of 2006 based on survey data available at the end of February. This leads us to expect rapid GDP growth in the first half of 2006.

We expect French GDP growth to accelerate at 2.2 per cent this year and 2 per cent next year following a disappointing 1.4 per cent in 2005. A number of factors will stop dampening growth. The impact of the past rise in oil prices and in the euro real exchange rate have largely been felt, while the forecast acceleration of German GDP growth will have a positive impact on French exports. However, French exporters have been losing market share in the last few years and although some stabilisation may occur with the help of more favourable exchange rate developments, French exports will not be the main engine for growth. Net external trade's contribution to growth will remain slightly negative.

We expect a slightly negative fiscal impulse under current budget plans. Fiscal contraction will come from low public spending growth, while households will benefit from tax cuts in 2007. The deficit target announced in the SP would be met in 2007 at around 2.7 per cent of GDP, down from 3 per cent in 2005 and 2.8 per cent in 2006. However, as 2007 will be an electoral year, fiscal policy could be less restrictive than currently announced, which would leave the government deficit closer to 3 per cent of GDP.

Under the combined effects of output growth and employment policies, the unemployment rate will keep on decreasing, down from 9.5 per cent in 2005 to 8.7 per cent in 2007 in terms of the standardised unemployment rate.

ITALY

In 2005 Italian GDP was flat on average as well as during the last quarter of the year (Euroframe-EFN estimate, as the release of quarterly data has been postponed). Despite another year of disappointing growth, we expect the Italian economy to recover in 2006. We expect growth to expand over the first half of this year as companies start to rebuild inventories and export and investment weakness is coming to an end. Household consumption seems still subdued, as only demand for durable goods remains on a rising trend.

The external environment remains favourable, and the recovery in the Euro area - especially in Germany, the most important market for Italian exports - should sustain Italian economy in 2006 and 2007, when GDP is expected to grow by 1.0 per cent and 1.4 per cent respectively. A bright outlook, if compared to the past four years when GDP grew by only 0.4 per cent on average, a more gloomy outlook if compared with other Euro area countries, where growth will reach the 2.1 per cent over this two years.

The gap is explained by the difficulties that part of the Italian industrial sector is facing due to the lack of competitiveness and the increase of competition in the international markets that Italian exports have been suffering from (see EUROFRAME-EFN report, Autumn 2005). A huge restructuring process of industrial production is under way and it is likely to last for some time to come.

This structural crisis is one of the main problems any new government will have to face. In Italy a general election will be held on April 9-10. Two coalitions of parties are facing each other: the incumbent centre-right (or House of Liberties) and the centre-left (or The Union). As usual, political programmes provide a long list of general goals but few specific actions to be implemented in order to achieve the goals. As a consequence, we will focus on the announced measures, which are very general and, to a degree, shared by the two coalitions. Both election platforms contain elements aimed at increasing the rate of growth of Italian economy on the one hand and measures to support household disposable income on the other (see Box 1.4). Neither of the two coalitions proposes a sharp reduction in the tax burden or a huge redesign of the structure of public revenues and expenditures. Hence, the only proposal implemented in this EUROFRAME-EFN forecast is the reduction of the social security contributions by 1 percentage point a year as this seems the only explicit measure shared by the two coalitions. In addition, to regain a medium term consolidation path of the public finances will be unavoidable and so the fiscal stance will be restrictive in the next years.

Box 1.4 Italian Election Platforms

The centre-right coalition is promising, among other things, several tax reductions: exemption from taxation of profits reinvested in ICT and R&D; reduction in the tax wedge on labour by up to 3 percentage points; fulfilment of tax reform consisting in the introduction of only two tax-brackets (23 and 33 per cent) for taxes on personal income and the gradual reduction of IRAP, the regional tax on business; reduction of VAT on tourism activities, as in France; exemption from taxation of overtime earnings. Measures to support households are primarily targeted at families with children, such as introduction of splitting of taxable income on the number of persons in the household and a newborn baby bonus, but also a huge (+45 per cent) increase in minimum pensions.

The centre-left agenda includes lowering the tax wedge on labour income by 5 percentage points; re-introduction of the tax credit for additional permanent workers; fiscal incentives for firms expanding; tax incentives in order to raise investment in ICT and R&D; increasing competition/deregulation in the service sectors. Measures to support households are mainly targeted at young families (higher allowances, more public nurseries, a new Child fund, increase in low-price housing) and building a new long-term care system.

The announced agendas are not so explicitly stated to permit a reliable evaluation of their impact. In addition, the full set of the measures is so wide that the winning coalition will have to choose among them. The fiscal budget constraints will not be consistent with the full implementation of the two programmes. Moreover, in both coalitions' platforms it remains unclear how the significant fiscal cost of the measures is going to be financed. While the government has indicated that it will embark on a strategy of aggressive privatisation of state owned assets that amount to 120 per cent of GDP, the platform of the centre left alliance includes measures to raise tax compliance after five years of tax amnesties, higher and more uniform taxation on the return to financial assets and an explicit commitment to the Stability and Growth Pact.

FINLAND

The Finnish economy is in good shape when compared to that of the Euro Area on average. Growth is strong and most structural balances, save unemployment, are rather sound. However, there are pressing problems such as ageing, which requires building up sizable current public sector surpluses to counter future expenditure pressures. However, shorter-term problems have also emerged. For example, the long labour dispute (strike and lockout) in the paper industry in May and June 2005 had a large impact on the annual growth figures of many economic variables.

Box 1.5 Unrest in the Finnish economy

Paper and pulp production was heavily depressed by the labour dispute, which led to mill shutdowns during part of May and the entire month of June. The industry's output fell by 57 per cent in May, in year-on-year terms, plunged by just over 71 per cent in June, and even declined by 11 per cent in July as mills were cautious in restarting their paper machines following the extended production stoppage. Output continued to decline slightly even in August, September and October from levels seen a year earlier. The volume of paper and pulp industry exports contracted by almost 19 per cent in January-August in year-on-year terms. Export prices rose by half of a per cent, implying a decline in export value of slightly more than 18 per cent. There were also additional negative effects on the wood industry, transportation and energy production.

As a consequence of the labour dispute, the volume of paper industry exports contracted by 13 per cent in 2005 and will expand in 2006 by 21 per cent due to base effects caused by the strike and lockout. Export growth should then slow to around 2.5 per cent in 2007. Output in the paper and pulp industry declined last year by over 11 per cent, but should increase by almost 18 per cent this year in response to base effects. Output growth is forecast to moderate to slightly less than 4 per cent in 2007. If the strike had not occurred, paper and pulp production would have risen by around 2 per cent in 2005 and about 2.5 per cent in 2006.

ETLA estimates that the labour dispute reduced Finnish GDP growth by around one percentage point in 2005. As a consequence of assumed normal production in the industry in 2006, our forecast for GDP growth of 3.8 per cent in 2006 includes a percentage point of extra growth.

1.4 Additional topics

Investment and inflation are two issues which have recently been subject to much discussion. In the case of investment, the low rates of expansion in the Euro Area economies have prompted concerns that the rates are below what would have been expected given prevailing economic conditions. In the case of inflation, the recent increase in the price of oil has led to concern about second round effects in the labour market. Given the importance of these issues, we explore each in greater detail in the following sections.

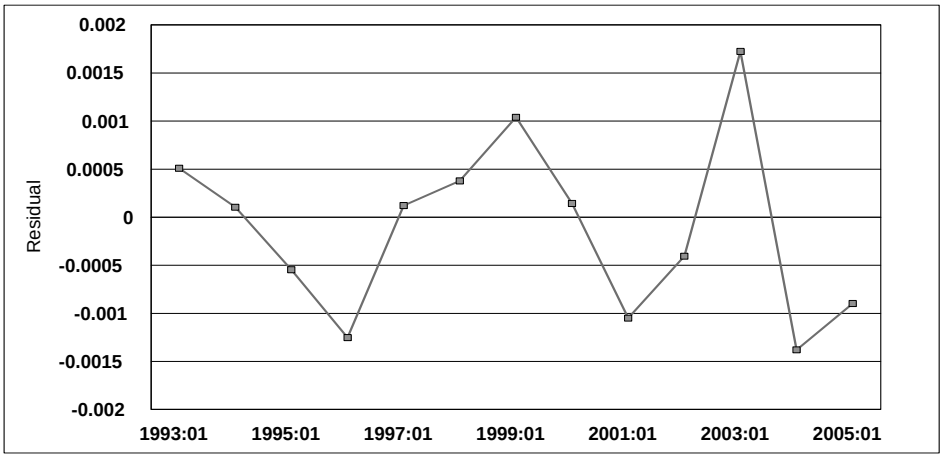
1.4.1 INVESTMENT IN EUROPE – HAS IT BEEN WEAK?

Output growth has been relatively weak over the last five years, and domestic demand growth since 2003 has hardly been any higher than GDP growth. Demand growth can be weak because output growth is weak and borrowing costs are high, or because individuals decide to either save more or invest less

than they would have done given output and borrowing costs. Weakness in investment that is unexplained by developments in the economy can be a worry for the longer term, as it would mean that the capacity to produce in the future would be constrained. The EUROFRAME group has expert knowledge of many European economies and in an annex to this report we survey views on investment behaviour in the major economies.[10] All Institutes maintain models of their economies and comments are based on them.

It is difficult to model investment, as adjustment to changes in the equilibrium capital stock can take varying amounts of time depending on essentially subjective decisions about the prospects. Hence all the equations we discuss have large errors on them, and all Institutes accept that there is a degree of uncertainty in their projections. Most Institutes derive their investment equations from a production function, and have labour and capital demand curves. In some cases these are estimated together, as in the work from Kiel, whilst in other, such as that from NIESR, DIW and Prometeia, they are estimated essentially separately but with theoretical constraints. In each of these cases we can look at the residuals on our estimated equations to judge whether investment has been weak in the last few years, and residuals for business investment or investment in equipment are plotted for the UK, Italy and Germany in the annex to the report.[11] In only one case, the Kiel equation for Germany (see Figure 1.3.2), do the residuals look relatively weak in the last two years, and even then they remain within historical bounds. Investment projections in the Netherlands and Finland are made using more disaggregated models, but in both cases a chart of the projections against outturn from the models used suggest that investment has not been particularly weak in the last three years. However, it is generally agreed that some support to investment has been made by special projects by governments, especially in smaller countries. We conclude that the sources of weak output growth in the Euro Area have to be found elsewhere and that these sources may be cyclical or structural.

Figure 1.3.2: Residuals on Business Fixed Investment Equation for Germany



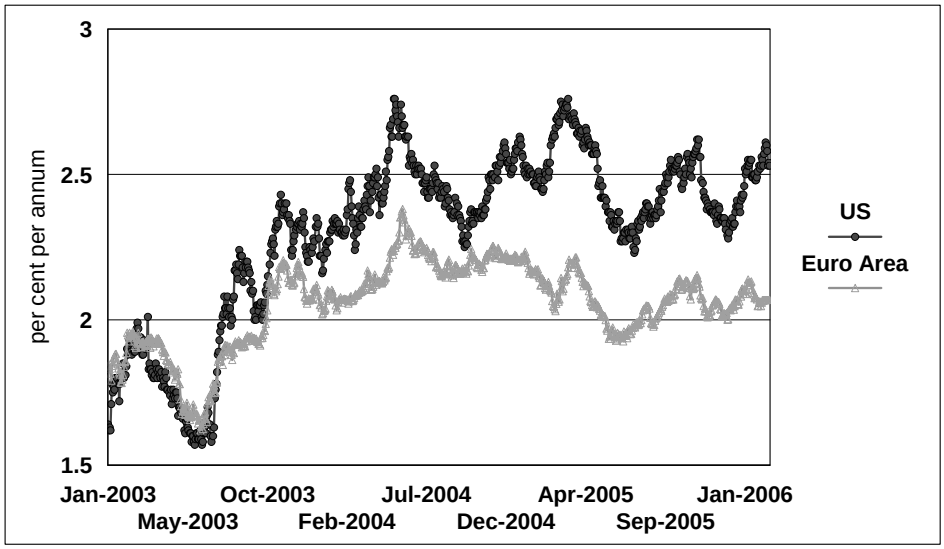
[10] The annex can be found at www.euroframe.org. Contributions were received from Christian Dreger at DIW and Carsten-Patick Meier at Kiel from Germany, Rebecca Riley at NIESR for the UK, Stefania Tomasini at Prometeia for Italy, Henk Krankendonk from the CPB for the Netherlands and Paavo Suni at ETLA for Finland. Other Institutes provided comments, and Ray Barrell from NIESR drafted the note.

[11] C.f. footnote 11.

1.4.2 EXPECTATIONS AND INFLATION

We have seen a steady rise in the oil price since mid-2003, with a cumulative rise of 135 per cent over this period. Strengthening exchange rates have offset about 10 per cent of the rise in the Euro Area, Japan and Canada, while a weaker US dollar has compounded the impact in the US. An oil price rise of this magnitude must inevitably have some global inflationary impact. Inflation expectations, as captured by inflation-indexed bonds, have edged up in the US and the Euro Area, as illustrated in Figure 1.4.1 US inflation expectations are about 0.8 percentage points higher than at the start of 2003, while Euro Area inflation expectations have risen by just 0.2 percentage points.

Figure 1.4.1: Inflation Expectations



Source: Federal Reserve Board, Agence France Trésor

The inflation expectations illustrated here reflect average annual inflation over a 10-year forward horizon. Yields on 5-year bonds in the US point to a rise of closer to 1.25 percentage points per annum in inflation expectations over the next five years. Clearly there has been some upward drift in inflation expectations since the oil price began to rise, but the rise has been relatively modest in the Euro Area. This suggests that inflation expectations over a 10-year horizon are relatively well anchored, with consumers expecting monetary authorities to keep inflation in check.

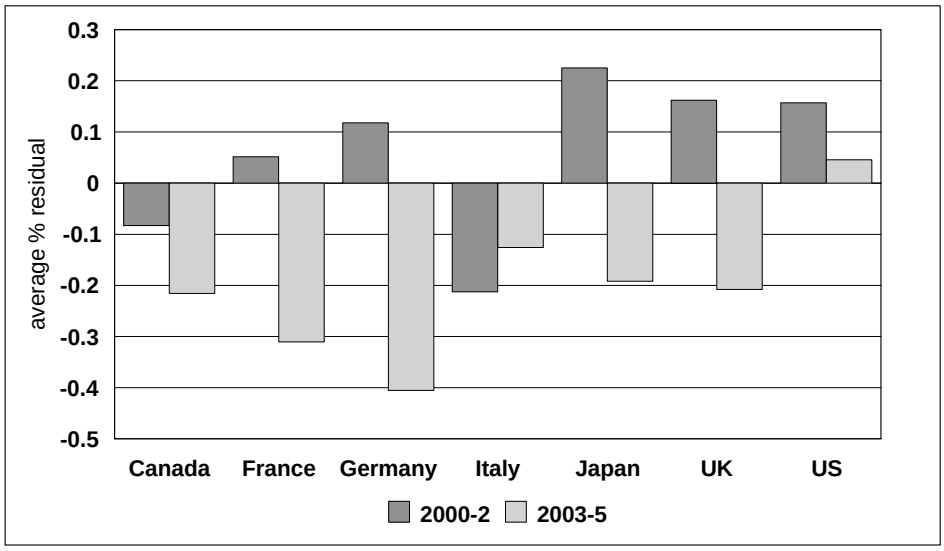
Inflation expectations play a key role in our forecasts for wage growth. We utilise model-based expectations that embed some degree of credibility in the inflation target, but allow for some drift in prices. If wage bargainers expect the Central Bank to be more strict in its response to inflation than our model-based rules suggest outcomes may be different from those suggested by the model. Real wage growth has shown some moderation in major economies, and real wages have actually fallen in Germany over this period. If wages are growing less rapidly than forecast, this suggests that second-round inflationary effects from the rise in the oil price will be weaker than anticipated. A simple dynamic model for wages can be expressed as:

$$\Delta \ln(wage) = \alpha_1 + \lambda\left[\ln(wage)_{-1} - \ln(p)_{-1} - \ln(prod)_{-1}\right] + \alpha_2 U_{-1} + \alpha_3 \ln(\pi) + (1-\alpha_3)\ln(\pi)^e + \varepsilon$$

In the long run, wages move in line with producer prices at factor cost (p) and trend productivity ($prod$). In the short-term, wages adjust to clear the labour market, where U is the unemployment rate, and move with a weighted average of current consumer inflation (π) and expected consumer inflation (π^e). We assume expected inflation embodies rational expectations that look forward one period. These weights (α_3) are estimated for each country and reflect the extent to which wage bargaining has exhibited forward-looking behaviour in the past. Any unexplained movement in wages is captured in the error term (ε).

Figure 1.4.2 illustrates the residuals on a set of wage equations for the G7 economies that were estimated in the format above. Clearly, since 2003, when the oil price began to rise, in most countries the residual has been more negative than in the previous three-year period.

Figure 1.4.2: Average residual on wage equations



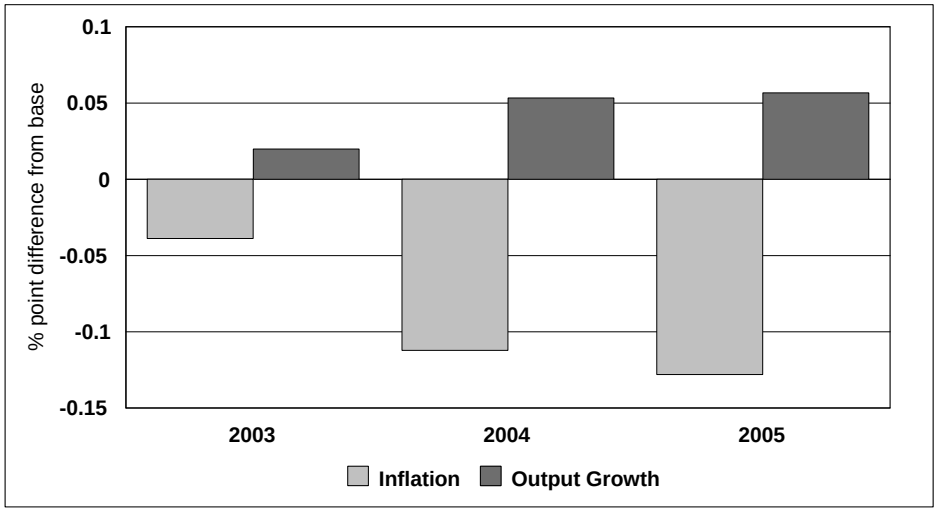
This decline is most pronounced in Germany, but is also evident in France, the UK, Canada and Japan. The relationship is less clear for the US and Italy, although the average US residual for 2003-2005 is smaller than in 2000-2002. These developments might lead us to conclude that second-round inflation effects are likely to be stronger in the US than elsewhere, and within Europe are likely to be stronger in Italy than the other large economies. This is consistent with our global inflation projections reported in Appendix table 3, where inflation in the US is expected to exceed 3 per cent both this year and next, and inflation is Italy is expected to outpace both Germany and France this year and next if we ignore the impact of the rise in VAT on German inflation in 2007.

The observed fall in the wage residual could be driven by a number of factors. Inflation expectations may be lower than our model allows, with consumers consistently under-predicting actual inflation. Wage bargaining behaviour may be more forward looking than it has been in the recent past, or the bargaining power of employers may have increased. This could reflect rising globalisation, as a number of firms have managed to keep wages in check by threatening to move production to lower cost regions. The equilibrium unemployment rate may have come down, due to labour market reforms. The shift could also be explained by a rise in the profit share of income at the expense of the labour

share. This could happen in response to a rise in capital augmenting technical progress, for example.

Any or all of these factors may be contributing to the unexpectedly weak wage growth in the major economies. In any case, it suggests that pass through of the oil price to inflation will be weaker than suggested by the model simulations reported in our October 2005 Report, and we identified the relative weakness of inflationary pressures in the Euro Area in our last Report. In order to analyse the effect of lower inflation expectations on wages and headline inflation, we undertake a model simulation with NiGEM. We reduce inflation expectations endogenously by 0.5 percentage points a year for three years in all the Euro Area countries. The size of the shock was calibrated so that it is just enough to 'soak up' the negative residual on our Euro Area wage equations for 2003-2005. Lower expectations feed into the wage bargain, and hence into costs, and as a result of this factor alone inflation would be around 0.1 percentage points a year lower than it would otherwise have been. In addition, output would be marginally stronger, as we can see from Figure 1.4.3. The impact of the shock is strongest in Germany, and this is consistent with the pattern of residuals illustrated in Figure 1.4.2.

Figure 1.4.3: Impact of 0.5 percentage point lower inflation expectations in Euro Area



FORECAST TABLES

Annex Table 1: Summary of Key Forecast Indicators for Euro Area[a]

	2002	2003	2004	2005	2006	2007
Output Growth Rate	1.0	0.7	1.8	1.4	2.2	2.0
Inflation Rate	2.3	2.1	2.1	2.2	2.2	2.2
Unemployment Rate	8.3	8.7	8.9	8.5	8.1	7.8
Gov. Balance as % GDP	-2.6	-3.0	-2.8	-2.4	-2.4	-2.2

a GDP data shown in the tables are adjusted for working-day variation.

Annex Table 2: Real GDP in Major Economies

	World	OECD	NAFTA	China	EU-25	Euro Area	USA	Japan	Germany	France	Italy	UK
	Annual percentage changes											
1995-2001	3.6	2.9	3.4	8.9	2.7	2.6	3.4	1.0	1.9	2.6	2.0	3.0
2002	3.0	1.6	1.7	9.1	1.2	1	1.6	0.1	0.1	1.3	0.4	2
2003	4.0	2.0	2.6	10	1.2	0.7	2.7	1.8	-0.2	0.9	0.4	2.5
2004	5.1	3.3	4.1	10.1	2.2	1.8	4.2	2.3	1.1	2.1	1.0	3.2
2005	4.6	2.8	3.4	9.9	1.6	1.4	3.5	2.7	1.1	1.4	0.0	1.8
2006	4.7	3	3.0	9.2	2.4	2.2	3.0	2.7	2.3	2.2	1.0	2.4
2007	4.4	2.7	3.1	8.2	2.3	2.0	3.0	2.1	1.5	2.0	1.4	2.7

Annex Table 3: Private Consumption Deflator in Major Economies

	OECD	NAFTA	China	EU	Euro Area	USA	Japan	Germany	France	Italy	UK
	Annual percentage changes										
1995-2001	2.3	2.7	4.5	2.0	2.0	1.9	-0.2	1.0	1.2	3.2	2.4
2002	1.5	1.8	-0.8	1.9	2.0	1.4	-1.4	1.2	1.0	3.1	1.5
2003	1.7	2.1	1.2	2.0	2.0	1.9	-1	1.5	1.1	2.5	2.0
2004	2	2.7	3.9	1.8	1.9	2.6	-0.7	1.4	1.5	2.2	1.3
2005	2.1	2.8	1.8	1.9	1.9	2.8	-0.8	1.3	1.2	2	2.1
2006	2.5	3.3	2.9	2.2	2.2	3.1	0.1	1.8	1.7	2.2	2.2
2007	2.6	3.5	2.3	2.2	2.2	3.2	0.2	2.3	1.7	2.1	2.2

Annex Table 4: World Trade Volume and Prices

	World trade volume	World export prices in $	Oil price ($ per barrel)[a]
	Annual percentage changes		
1995-2001	7.4	-1.6	19.3
2002	3.4	0.6	24.4
2003	4.9	9.2	27.8
2004	8.1	8.1	35.9
2005	6.6	3.9	51.8
2006	6.9	-0.9	58.9
2007	6.0	2.5	56.0

[a] Based on the unweighted average of the Brent, WTI (West Texas Intermediate) and Dubai oil prices.

Annex Table 5: Interest Rates

	Short-term interest rates				Long-term interest rates			
	USA	Japan	Euro Area	UK	USA	Japan	Euro Area	UK
2002	1.7	0.1	3.3	4.0	4.6	1.2	4.9	4.9
2003	1.2	0.0	2.3	3.7	4.0	1.1	4.2	4.5
2004	1.6	0.0	2.1	4.6	4.3	1.5	4.1	4.9
2005	3.5	0.0	2.2	4.7	4.3	1.3	3.4	4.4
2006	4.8	0.1	2.7	4.5	4.6	1.6	3.6	4.2
2007	5.0	0.6	3.1	4.5	4.7	1.8	3.9	4.3
2005Q1	2.8	0.0	2.1	4.9	4.3	1.3	3.7	4.7
2005Q2	3.2	0.0	2.1	4.8	4.2	1.1	3.4	4.4
2005Q3	3.7	0.0	2.1	4.6	4.2	1.4	3.3	4.3
2005Q4	4.3	0.0	2.3	4.6	4.5	1.5	3.4	4.3
2006Q1	4.6	0.1	2.5	4.5	4.5	1.5	3.5	4.1
2006Q2	4.8	0.1	2.6	4.5	4.6	1.5	3.6	4.2
2006Q3	5.0	0.2	2.8	4.5	4.7	1.6	3.7	4.2
2006Q4	5.0	0.3	2.9	4.5	4.7	1.7	3.8	4.2
2007Q1	5.0	0.4	3	4.5	4.7	1.8	3.8	4.2
2007Q2	5.0	0.6	3.1	4.5	4.8	1.8	3.9	4.2
2007Q3	5.0	0.7	3.2	4.5	4.8	1.8	4.0	4.3
2007Q4	4.9	0.9	3.3	4.5	4.8	1.8	4.0	4.3

Annex Table 6: Effective Exchange Rates

	USA	Japan	Euro Area	Germany	France	Italy	UK
	Annual percentage changes						
2002	3.0	-0.5	7.4	2.9	3.3	4.8	2.5
2003	-6.0	3.9	13.7	6.6	6.4	7.1	-2.7
2004	-4.7	4.2	5.4	2.3	2.3	2.7	5.3
2005	-2.7	-3.1	-1.1	-0.8	-0.3	-0.6	-1.5
2006	-0.5	-4.7	-2.3	-1.1	-0.9	-1.3	-1.7
2007	-0.7	3.4	0.9	0.5	0.5	0.6	-1.0
2005Q1	-1.4	-0.2	0.3	0.1	0.2	0.2	0.1
2005Q2	1.3	-2.2	-2.9	-1.3	-1.4	-1.5	0.8
2005Q3	0.4	-2.6	-1.9	-0.9	-0.8	-1.0	-1.9
2005Q4	1.1	-4.3	-1.2	-0.6	-0.7	-0.8	-0.3
2006Q1	-1.4	-0.3	0.1	0.0	0.2	0.0	-0.5
2006Q2	-0.3	0.4	0.1	0.1	0.1	0.0	-0.1
2006Q3	-0.1	0.5	0.2	0.1	0.1	0.1	-0.2
2006Q4	-0.1	0.4	0.2	0.1	0.1	0.1	-0.2
2007Q1	-0.2	1.1	0.4	0.2	0.2	0.3	-0.6
2007Q2	-0.2	1.4	0.0	0.0	0.0	0.0	-0.1
2007Q3	-0.3	0.9	0.3	0.2	0.1	0.2	0.0
2007Q4	-0.1	0.7	0.1	0.0	0.0	0.1	-0.1

Annex Table 7: Euro Area, Main Features of Forecast[a]

	2001	2002	2003	2004	2005	2006	2007
	Annual percentage changes						
Volumes							
Consumption	1.9	0.9	1.0	1.4	1.4	1.6	1.8
Private investment	-1.9	-3.1	0.6	2.1	2.1	4.0	3.5
Government expenditure	2.3	2.4	1.7	0.9	1.5	2.3	1.6
Stockbuilding[b]	-0.5	-0.2	0.2	0.4	0.1	0.1	-0.1
Total domestic demand	0.8	0.3	1.3	1.9	1.6	2.3	1.9
Export volumes	3.6	1.7	1.2	5.9	3.9	6.6	5.4
Import volumes	1.8	0.4	3.0	6.2	4.7	6.8	5.3
GDP	**1.9**	**1.0**	**0.7**	**1.8**	**1.4**	**2.2**	**2.0**
Average earnings	3.7	3.5	2.8	2.2	2.0	2.3	3.3
Harmonised consumer prices	2.4	2.3	2.1	2.1	2.2	2.2	2.2
Private consumption deflator	2.5	2.0	2.0	1.9	1.9	2.2	2.2
Real personal disposable income	2.5	1.6	1.0	1.6	0.6	1.0	1.8
	Levels						
Standardised unemployment %	7.8	8.3	8.7	8.9	8.5	8.1	7.8
Government financial balance[c]	-1.9	-2.6	-3.0	-2.8	-2.4	-2.4	-2.2
Government debt[c]	69.3	69.2	70.4	70.8	71.6	70.5	69.2
Current account[c]	-0.3	0.8	0.5	0.6	-0.4	-0.7	-0.3

[a] See footnote a of Annex table 1.

[b] Change as percentage of GDP.

[c] As a percentage of GDP.

Annex Table 8: Real GDP in the European Union [a]

	2002	2003	2004	2005	2006	2007
	Annual percentage changes					
Austria	1.0	1.4	2.4	1.9	2.4	2.3
Belgium	1.5	0.9	2.4	1.5	1.9	1.8
Denmark	0.5	0.7	1.9	3.4	2.8	2.7
Finland	2.1	2.4	3.5	2.2	3.8	2.8
France	1.3	0.9	2.1	1.4	2.2	2.0
Germany	0.1	-0.2	1.1	1.1	2.3	1.5
Greece	3.8	4.6	4.7	3.7	3.2	3.3
Ireland	6.1	4.4	4.5	4.8	4.7	4.4
Italy	0.4	0.4	1.0	0.0	1.0	1.4
Netherlands	0.1	-0.1	1.7	0.9	3.0	3.1
Portugal	0.5	-1.2	1.2	0.4	0.9	2.2
Spain	2.7	3	3.1	3.4	3.3	3.1
Sweden	2.0	1.8	3.2	2.7	3.4	3.3
United Kingdom	2.0	2.5	3.2	1.8	2.4	2.7
Poland	1.4	3.8	5.3	3.2	4.2	4.6
Hungary	3.8	3.4	4.5	4.1	4.0	3.9
Czech Republic	1.5	3.2	4.7	6.0	5.4	4.6
Estonia	7.2	6.7	7.8	9.7	7.1	6.4
Latvia	6.4	7.5	8.4	8.9	7.4	6.8
Lithuania	6.8	10.5	7.0	7.5	6.3	5.8
Slovak Republic	4.6	4.5	5.5	6.0	5.4	4.9
Slovenia	3.3	2.5	4.6	3.9	4.0	4.4
Euro Area	1.0	0.7	1.8	1.4	2.2	2.0
EU-15	1.2	1.0	2.1	1.5	2.3	2.2
NMS-10	2.7	4.6	5.6	4.6	4.7	4.6
EU-25	1.2	1.2	2.2	1.6	2.4	2.3

[a] GDP data shown in the tables are adjusted for working-day variation.

Annex Table 9: Harmonised Inflation in the European Union

	2002	2003	2004	2005	2006	2007
	Annual percentage changes					
Austria	1.7	1.3	2.0	2.1	1.7	1.8
Belgium	1.6	1.5	1.8	2.6	2.6	2.6
Denmark	2.4	2.0	0.9	1.7	1.8	2.0
Finland	2.0	1.3	0.2	0.8	1.4	1.6
France	1.9	2.2	2.3	1.9	1.8	1.7
Germany	1.4	1.0	1.8	1.9	1.6	2.3
Greece	3.9	3.4	3.0	3.5	3.8	3.5
Ireland	4.7	4.0	2.3	2.3	2.7	2.6
Italy	2.6	2.8	2.3	2.2	2.3	2.1
Netherlands	3.9	2.3	1.4	1.5	1.9	1.9
Portugal	3.7	3.2	2.5	2.1	2.8	2.8
Spain	3.6	3.1	3.1	3.4	3.6	2.8
Sweden	1.9	2.3	1.0	0.8	1.6	1.5
United Kingdom	1.3	1.4	1.3	2.1	2.1	2
Poland	1.9	0.7	3.6	2.2	1.5	2.4
Hungary	5.2	4.7	6.8	3.5	2.5	3.0
Czech Republic	1.4	-0.1	2.6	1.6	2.3	2.1
Estonia	3.6	1.4	3.0	4.2	3.8	3.0
Latvia	2.0	2.9	6.2	6.9	5.1	4.0
Lithuania	0.4	-1.1	1.1	2.7	2.0	2.1
Slovakia	3.5	8.5	7.4	2.8	2.4	2.6
Slovenia	7.4	5.7	3.6	2.5	2.1	2.4
Euro Area	2.3	2.1	2.1	2.2	2.2	2.2
EU-15	2.1	2.0	2.0	2.1	1.8	2.2
NMS-10	2.7	1.9	4.2	2.5	2.0	2.5
EU-25	2.1	1.9	2.1	2.2	1.8	2.2

Annex Table 10: Fiscal Balances in the EU-15

	2002	2003	2004	2005	2006	2007
	% GDP					
Austria	-0.6	-1.3	-1.1	-1.7	-1.5	-1.5
Belgium	0.1	0.3	0.0	-0.3	-0.5	-0.6
Denmark	0.3	0.0	1.6	2.3	2.8	1.7
Finland	4.3	2.3	1.9	2.6	2.7	2.1
France	-3.2	-4.2	-3.7	-3.0	-2.8	-2.7
Germany	-3.8	-4.1	-3.7	-3.3	-2.9	-2.5
Greece	-4.9	-5.7	-6.5	-4.4	-3.2	-3.1
Ireland	-0.4	0.2	1.4	0.1	-0.4	-0.5
Italy	-2.9	-3.4	-3.4	-4.1	-4.8	-4.4
Netherlands	-2.0	-3.2	-2.1	-0.5	-1.0	-0.6
Portugal	-2.8	-2.9	-3.0	-6.1	-4.8	-4.1
Spain	-0.3	0.0	-0.2	1.0	0.5	0.4
Sweden	-0.5	-0.1	1.4	1.2	1.4	1.7
United Kingdom	-1.6	-3.2	-3.2	-3.1	-2.6	-2.6
Euro Area	-2.6	-3.0	-2.8	-2.4	-2.4	-2.2
Eu-15	-2.2	-2.9	-2.6	-2.3	-2.2	-2.1

Annex Table 11: Standardised Unemployment Rate in the European Union

	2002	2003	2004	2005	2006	2007
	% Total labour force					
Austria	4.1	4.3	4.8	5.1	5.3	4.9
Belgium	7.5	8.2	8.4	8.4	8.9	9.0
Denmark	4.6	5.4	5.5	4.9	4.4	4.0
Finland	9.1	9.0	8.9	8.3	8.1	7.7
France	8.9	9.4	9.6	9.5	9.0	8.7
Germany	8.2	9.1	9.5	9.5	8.6	8.3
Greece	10.3	9.7	10.5	10.0.	9.9	9.7
Ireland	4.5	4.7	4.5	4.3	3.9	3.7
Italy	8.6	8.4	8.1	7.6	7.7	7.8
Netherlands	2.8	3.7	4.6	4.8	4.2	3.4
Portugal	5.0	6.3	6.7	7.6	8.0	7.4
Spain	11.5	11.5	10.9	9.2	8.6	8.0
Sweden	4.9	5.6	6.3	6.2	5.7	4.6
United Kingdom	5.2	5.0	4.8	4.8	5.1	5.4
Poland	19.9	19.6	19.0	17.7	16.2	15.1
Hungary	5.8	5.9	6.1	7.2	7.0	7.2
Czech Republic	7.3	7.9	8.3	7.9	8.1	6.8
Estonia	10.3	10.0	9.7	7.8	7.5	8.0
Latvia	12.2	10.5	10.4	9.0	8.9	9.5
Lithuania	13.5	12.4	11.4	8.2	6.8	6.2
Slovakia	18.7	17.6	18.2	16.4	13.8	13.1
Slovenia	6.3	6.7	6.3	6.3	6.3	5.8
Euro Area	8.3	8.7	8.9	8.5	8.1	7.8
EU-15	7.6	8.0	8.1	7.8	7.5	7.3
NMS-10	14.8	14.3	14.2	13.4	12.1	11.3
EU-25	8.7	8.9	9.0	8.6	8.2	7.9

2. EUROPEAN POLICY MONITORING

2.1 Monetary Policy in the Euro Area

Monetary conditions in the Euro Area have deteriorated slightly in recent months. The ECB's key interest rate (the minimum bid rate on the main refinancing operations of the Eurosystem) has been raised in two steps since the beginning of last December by 50 basis points and stands at 2.50 percent since early March. Money market rates (3-month EURIBOR) are also higher than in the fall of last year; in the first weeks of March, they reached about 2.70 percent on average, reflecting the fact that further rate hikes by the ECB are currently expected by the market. The real short-term interest rate went up by roughly half a percentage point as inflation rates have changed only marginally; however, the real rate is still well below its long-term average. Long-term interest rates have risen in recent months as well. The yield for 10-year government bonds has gone up by about 60 basis points to 3.8 percent from its record low in early September 2005. In real terms, the long rates are also below their historical average independent of the inflation measure used, be it the core rate of inflation or be it inflationary expectations, approximated by the ten-year break-even inflation rate for the Euro Area. The level of long-term rates is still very low by historical standards and can, at least in part, be explained by the ample liquidity in the world economy. The recent rise probably also reflects the fact that the near-term outlook for the Euro Area economy has improved. Expectations for real GDP growth in 2006 have been revised upwards in recent months (see, for example, ECB Monthly Bulletin February 2006: 40). The value of the European currency has not changed very much against major world currencies in recent months. In real and effective terms (EER-42, CPI basis), the depreciation amounted to only about 1 percent during the past six months. Therefore, the competitiveness of exporters has improved only very little. As far as conditions of financing are concerned, the increase of stock prices in recent months implies that financial conditions for firms have improved.

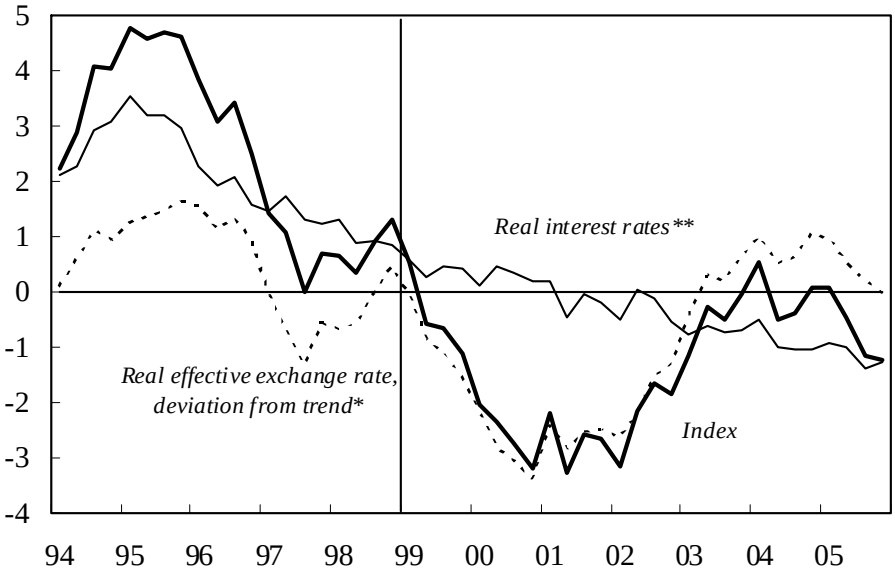
The ECB also looks at the growth rates of money and credit when analysing monetary conditions. Monetary aggregates have shown strong growth since 2004 although M3 growth decelerated slightly in recent months reaching some 8 percent year-over-year. The narrow aggregate M1 increased at double-digit rates. Credits to the private sector grew by almost 10 percent recently indicating also the pickup of demand in the Euro Area.

Interest rates and exchange rates are often combined to measure monetary conditions in an economy. Many different estimates of the so-called monetary conditions index (MCI) are used in the literature and often also by international organizations. The idea is to get more information than just from one single variable about the stance of monetary policy. Commonly, different weights are put on the real effective exchange rate and real interest rates which may differ for the purpose of the analysis and also differ across countries due to, for example, differences in the degree of openness. The estimates prepared

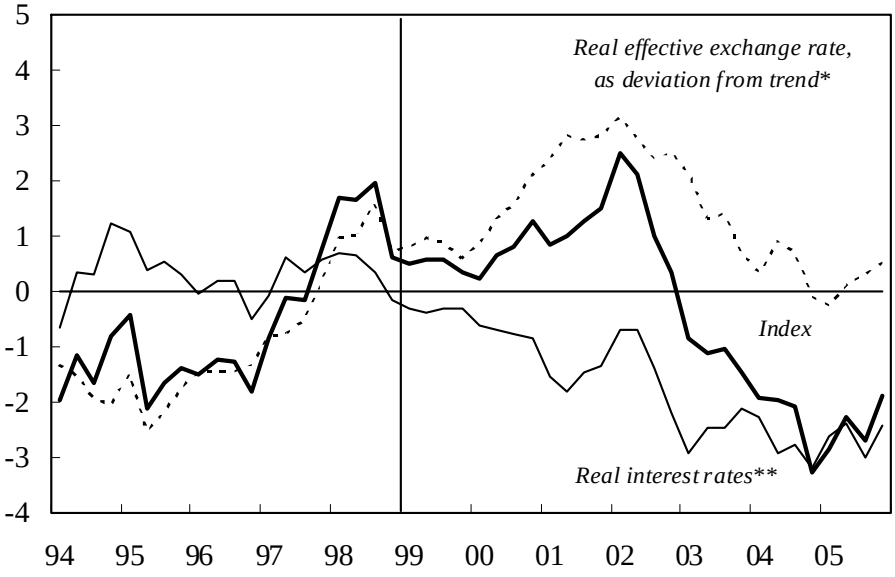
by the institutes are shown in Figure 2.1 for the Euro Area as well as for the United States in order to have a comparison. The weights are 5:1 for the real interest rate compared to the real effective exchange rate. In the US, monetary conditions have become tighter since late 2004 due to a rise in both variables after having moved in the very expansive direction in the years before when the dollar had depreciated sharply and interest rates had been lowered by the Fed. In the Euro Area, while real interest rates have come down quite steadily over the past ten years, the MCI measure was strongly affected by the swings of the exchange rate. In recent years, the Euro Area MCI showed a tightening of monetary conditions between 2002 and 2004; since then, they have improved mainly due to the depreciation of the euro. One should be cautious, however, when interpreting the level of the MCI itself. If the zero line in the figure is seen as a "neutral" policy, the MCI confirms the judgement made above that monetary conditions are still accommodative.

Figure 2.1*:* Monetary Conditions for the Euro Area and the US

Monetary conditions for the Euro Area



Monetary conditions for the US



Another way of looking at the stance of monetary policy is the Taylor rule. In March this year, the short-term money market rate was roughly in line with the rate which is derived from the Taylor rule.[1] In Table 2.1, several different calculations of the Taylor rate are reported for the year 2005. For the equilibrium real rate of interest we assume, following theoretical considerations, that it is equal to the estimated growth rate of potential output. Even though estimates concerning potential output growth vary, the calculated Taylor rates do not differ much.[2] According to the rule, the money market rate should have been between 2.4 and 2.6 percent in 2005 on average instead of the actual rate of 2.2 percent (Table 2.1). In addition, in spite of the different assumptions about potential output growth, the results for the calculated "neutral" rate of interest are quite similar. Given the Taylor rule, this rate should prevail when the output gap is closed and the inflation rate is on target. According to the various calculations, this rate is estimated to be between 3.4 and 3.7 percent. Of course, there is a lot of uncertainty concerning the crucial variables. Nevertheless, it seems reasonable to say that the stance of monetary policy in the Euro Area can be considered accommodative also by this measure.

Table 2.1: Various Calculations of the Taylor Rate and the Neutral Interest Rate in the Euro Area 2005[a]

Method	Potential growth ($\hat{=}$ real rate)	Output gap	Taylor rate	Neutral rate
OECD estimate	1.9	–1.5	2.5	3.7
HP filter	1.6	–0.3	2.8	3.4
IfW estimate	1.8	–1.5	2.4	3.6
IMF estimate	1.9	–1.6	2.5	3.7
NiGEM	1.6	–0.6	2.6	3.4

[a]The inflation target is assumed to be 1.8 percent. The Taylor rate is calculated for the core rate of inflation (HICP excluding energy, food, alcohol and tobacco). The core rate of inflation was 1.5 percent in 2005.

We expect that the ECB will continue to raise key rates in the near future. There are several reasons why the ECB will tighten policy somewhat. One is that inflation has remained above the target for a long time – albeit moderately, and in the recent survey reported by the ECB inflation forecasts were raised slightly compared to the previous one; the same applies to the staff projections of early March. Also, the monetary overhang which the ECB interprets as one leading indicator for future inflation increased further due to persistently high money growth. And finally, following weak growth in the last quarter of 2005, the Euro Area economy seems to have picked up in the first quarter of 2006 and we forecast GDP to grow by more than 2% in 2006 which will make some further tightening of interest rates likely. For example, in terms of the Taylor

[1] As in our previous report, we use the Taylor rule in its original version (Taylor 1993):

(1) $i = r + \pi + 0.5\,(\pi - \pi^*) + 0.5\,(y - y^*)$,

with i being the nominal interest rate, r the equilibrium real interest rate, π the rate of inflation, π^* the inflation target, y actual real GDP, and y^* potential real GDP. We assume an inflation target of 1.8 percent which is consistent with the ECB's target of inflation close to but below 2 percent. The core rate of inflation (HICP excl. processed food and energy) is used because it appears to be a better orientation for monetary policy because volatile prices are largely excluded. For the output gap, various estimates are reported in the table.

[2] This is due to the fact that there are compensating factors. For example, a high growth rate of potential output implies that the negative output gap is larger which would lead to a lower interest rate according to the Taylor rule. However, the Taylor rate is raised by the fact that the equilibrium real rate of interest is higher.

rule discussed above, capacity utilisation in the Euro Area is likely to increase (the negative output gap is shrinking), which implies that interest rates should rise in response. However, the ECB will probably proceed very cautiously. Key interest rates will be raised by only 50 basis points until mid-2007, also because inflation is not likely to accelerate. The small increase in inflation that will result from the increase in VAT in Germany in January 2007, is assumed not to provoke a reaction from the ECB as it should be regarded as a predominantly temporary effect since second round effects from this measure should be limited. Another reason for expecting only a modest increase of key interest rates is that the economic expansion will lose some momentum in the course of 2007 according to our forecast.

2.2 Fiscal Policy in the Euro Area

This section provides a brief assessment of the short-term budgetary prospects in the euro area. We will focus as in last year's EUROFRAME-EFN Spring report on the budgetary prospects we expect as compared with the updates of the Stability programmes (SPs) released at the turn of the year. We will address successively GDP growth scenarios, deficits targets and the fiscal stance of the euro area.

GROWTH PROSPECTS

We expect euro area GDP to grow by 2.2 per cent this year and 2.0 per cent next year. These numbers are indeed very similar with the SPs where euro area GDP is forecast to grow by 2.1 per cent this year and 2.0 per cent next year (see Table 2.2). So for the first time since the economic slowdown initiated in late 2000, euro area GDP growth forecast in the SP may turn out to be slightly pessimistic this year, at least for 2006. This contrasts sharply with last year when SPs looked optimistic at the euro area level as compared with EUROFRAME-EFN and also other forecasts: we then expected euro area GDP to grow by 1.5 per cent and 2005 and 2.0 per cent in 2006, as compared to 2.3 and 2.4 announced in the SPs.

Table 2.2. Euro area GDP growth and general government balances according to the stability programmes

1. EUROFRAME-EFN, Spring 2006 Forecast.

	GDP growth assumptions (per cent)									General government balance (per cent of GDP)								
	Stability Programmes								Actual	Stability Programmes								Actual
	J99	J00	J01	J02	J03	J04	J05	J06		J99	J00	J01	J02	J03	J04	J05	J06	
98	2.8								2.8	-2.1	-1.9							-2.3
99	2.5	2.2							2.8	-1.7	-1.4	-1.2						-1.3
00	2.6	2.8	3.3						3.9	-1.5	-1.1	-0.7	-0.8					-1.0
01	2.6	2.5	3.1	1.7	1.5				1.9	-1.0	-0.8	-0.6	-1.2	-1.6				-1.9
02		2.5	2.9	1.9	1.0				0.9		-0.6	-0.3	-0.9	-2.2				-2.6
03		2.5	2.8	2.6	2.1	0.6			0.7		-0.2	0.0	-0.5	-1.8	-2.7			-3.0
04			2.8	2.6	2.6	1.9	2.0		1.8			0.4	0.1	-1.1	-2.4	-2.7		-2.8
05				2.6	2.6	2.5	2.3	1.4	1.4[1]				0.3	-0.6	-1.8	-2.3	-2.6	-2.4[1]
06					2.6	2.5	2.4	2.1	2.2[1]					-0.2	-1.3	-1.8	-2.4	-2.4[1]
07						2.5	2.4	2.0	2.0[1]						-0.9	-1.3	-1.9	-2.2[1]
08							2.4	2.2	–							-1.0	-1.4	–
09								2.2	–								-0.9	–

The macroeconomic scenarios of the SPs are judged broadly realistic by EUROFRAME-EFN for most euro area countries. At country levels our forecasts are generally close to those of the SPs. Germany is one of the main exceptions: we expect a higher German GDP growth than announced in the SP for this year (2.3 per cent instead of 1.5 per cent) and next (1.5 instead of 1.0).[3] We also expect GDP to grow more rapidly than announced in the Netherlands (around 3 per cent in 2006 and 2007 as compared to 2.5 in the SP), Finland (3.8 per cent in 2006 instead of 3.2 but this reflects the effects of the dispute in the paper industry in the summer of 2005). In contrast, we expect GDP growth to remain subdued in Italy at around 1.0 per cent this year and 1.4 per cent next year instead of 1.5 forecast in the Italian SP. Our GDP growth forecasts are also significantly lower than those of the Governments in Greece and Portugal.

DEFICIT TARGETS

We expect the deficit targets announced in the SPs will be met at the euro area level in 2006, with the aggregate deficit amounting to 2.4 per cent of GDP but slightly higher deficits in 2007: 2.2 per cent of GDP instead of 1.9 per cent in the SPs.

Among the countries running deficits of at least 3 per cent of GDP in 2005, we expect the deficit targets announced in the SPs to be met in Germany and France this year and next year. This would not be the case for Greece, Italy and Portugal.

The target announced by the German government will be met due to higher than announced growth and despite a less contractionary than announced fiscal stance in 2006. The German deficit would reach 2.5 per cent of GDP in 2007. The latest developments of the German budget are described in Box 1.3 in Chapter 1. We expect broadly similar than announced GDP growth and fiscal impulses for France, bringing the deficit at around 2.7 per cent of GDP in 2007. On the contrary, weaker than announced GDP growth but especially less restrictive than announced policies will keep the government deficit rising in Italy in 2006. In our forecast, the higher expected deficit for Italy is mainly due to an estimated much worse behaviour of the public balance trend and to lower estimates of the budget law measures, from both the revenues side (control of tax evasion), and the expenditure side (savings on the health care expenditure and on the compensation of civil servants). As the elections due this Spring increase the uncertainties around fiscal measures for 2007 (see Box 1.4 in Chapter 1), we expect the deficit to be cut by 0.4 percentage point to around 4.4 per cent of GDP, that we consider the minimum target whatever new government will meet.

Up to our forecast horizon, Greece and Portugal will reduce their deficits under the effects of contractionary fiscal policies but less rapidly than anticipated in the SP mainly because of lower than expected GDP growth. Direct and indirect tax increases are announced in both countries' SPs for 2006 and 2007, but we do not expect they will be as strong as anticipated in the SP due to lower than announced GDP growth.

In the other euro area countries, deficits targets will almost be met, both in 2006 and 2007. In Spain, strong economic growth will keep on maintaining the government balance in surplus.

[3] It should be noted however that EUROFRAME-EFN figures are working day adjusted and this implies they are all other things being equal 0.2 percentage points higher in both years than the figures of the government which forecasts unadjusted annual figures.

One-off measures are expected to phase-out in most countries (see table 2.4). One-off measures reducing the deficit are still expected for 2006 in France (0.2% of GDP after 0.5%), Italy (0.3 after 0.5) and Belgium (0.6 after 0.4). The Portuguese SP has confirmed the commitment not to use them in order to achieve budgetary consolidation, contrary to the past when one-off measures contributed to a large extent to the reduction of the deficit. At the area level, one-off measures are expected to amount to 0% of GDP in 2007, after 0.2 in 2005 and 0.1 in 2006.

EXPECTED FISCAL STANCE

Table 2.3 shows an estimate of the fiscal stance in the euro area, based on SPs updates. Up to 2009, the fiscal stance is expected to be contractionary at the euro area level for all years and for almost all countries. The fiscal contractionary impact would on average amount to an annual 0.4 per cent of GDP.

In terms of years, the contraction would be stronger in 2007 (0.7 per cent of GDP), reflecting a particularly strong planned effort in Germany (1.2 per cent), Italy (1.1 per cent) and Portugal (1.1 per cent). All countries running higher than 3% of GDP deficits in 2005 have announced contractionary measures of at least 0.5 percentage point per year until 2009 (Germany, France, Italy, Portugal) or 2008 (Greece). The fiscal stance is announced to be restrictive or neutral in a majority of euro area countries according to the SPs. Fiscal policy would be slightly expansionary this year and to a smaller extent next year in Spain, the Netherlands, Finland and Ireland.

Table 2.4 shows two estimates of the fiscal stance in the euro area, based on EUROFRAME-EFN forecasts for GDP growth and government deficits. The assessment of the fiscal stance depends not only on GDP growth and government balances, but also on potential growth estimates that may vary significantly from one method to another. In Table 2.4, one estimate uses potential output growth taken from the latest SPs, implying a potential output growth of around 2% for the euro area as whole. The other estimate uses NiGEM figures that suggest euro area trend output growing by around 1.7% this year and next year. The two associated fiscal stances are shown to provide some bounds of the fiscal stance underway in the euro area.

Using latest SPs potential output growth assumptions, fiscal policy will be close to neutral this year before turning again slightly contractionary at the euro area level in 2007, dampening economic growth by an annual 0.3 percentage point of GDP: we expect a less contractionary stance than announced in the SPs. The expected fiscal stance may be judged closer to neutral using NiGEM estimates.

Both measures however suggest that fiscal policy will become slightly more restrictive at the euro area level in 2007 than in 2006. This will be especially true for two of the countries currently running the larger deficits: Germany and Italy. In Italy, after two years of fiscal contraction we expect some slightly expansive fiscal impulse this year contrary to the strong negative impulse announced in the SP, but Italian fiscal policy will be tightened again in 2007. Over the forecast horizon, we expect the fiscal stance to be restrictive in all countries running higher than 3% deficits, while it will be neutral or slightly expansionary in the other countries: Austria, Belgium, Finland, Ireland, Spain and the Netherlands.

The agreement reached on the Stability and Growth Pact by the European Council of 22-23 March 2005 seems not to have affected the conduct of fiscal policy in the European Union.

Table 2.3: GDP growth, fiscal balances and fiscal impulses in the updates of the stability programmes, end 2005

	2004	2005	2006	2007	2008	2009
Real GDP growth, per cent						
Germany	1.6	0.9	1.5	1.0	1.8	1.8
France	2.3	1.8	2.3	2.3	2.3	2.3
Italy	1.2	0.0	1.5	1.5	1.7	1.8
Spain	3.1	3.4	3.3	3.2	3.2	*3.2**
The Netherlands	1.7	0.8	2.5	2.5	2.3	*2.3**
Belgium	2.6	1.4	2.2	2.1	2.3	2.2
Austria	2.4	1.7	1.8	2.4	2.5	2.5*
Finland	3.6	2.1	3.2	2.6	2.3	2.1
Portugal	1.2	0.5	1.1	1.8	2.4	3.0
Greece	4.7	3.6	3.8	3.8	4.0	*4.0**
Ireland	4.5	4.6	4.8	5.0	4.8	*4.8**
Luxemburg	4.4	4.0	4.4	4.9	*4.9*	*4.9**
Euro area	**2.1**	**1.4**	**2.1**	**2.0**	**2.2**	**2.2**
General government balance, per cent of GDP						
Germany	-3.7	-3.3	-3.3	-2.5	-2.0	-1.5
France	-3.7	-3.0	-2.9	-2.6	-1.9	-1.0
Italy	-3.2	-4.3	-3.5	-2.8	-2.1	-1.5
Spain	-0.1	1.0	0.9	0.7	0.6	*0.6**
The Netherlands	-2.1	-1.2	-1.5	-1.2	-1.1	*-1.1**
Belgium	0.0	0.0	0.0	0.3	0.5	0.7
Austria	-1.0	-1.9	-1.7	-0.8	0.0	0.0*
Finland	2.1	1.8	1.6	1.6	1.5	1.5
Portugal	-3.0	-6.0	-4.6	-3.7	-2.6	-1.5
Greece	-6.6	-4.3	-2.6	-2.3	-1.7	*-1.3**
Ireland	1.4	0.3	-0.6	-0.8	-0.8	*-0.8**
Luxemburg	-1.2	-2.3	-1.8	-1.0	-0.2	*-0.2**
Euro area	**-2.8**	**-2.6**	**-2.4**	**-1.9**	**-1.4**	**-0.9**
Fiscal impulse, per cent of GDP [(1)]						
Germany		-0.8	-0.1	-1.2	-0.5	-0.5
France		-0.6	-0.3	-0.4	-0.6	-0.8
Italy		-0.1	-0.7	-1.1	-0.6	-0.5
Spain		-0.2	0.2	0.3	0.1	*0.0**
The Netherlands		-0.9	0.5	0.0	0.0	*0.1**
Belgium		0.5	0.6	-0.7	-0.1	0.0
Austria		0.8	-0.2	-0.7	-0.6	*0.2**
Finland		-0.2	0.5	0.1	0.1	0.0
Portugal		0.1	-2.5	-1.1	-0.9	-0.6
Greece		-2.2	-0.9	-0.6	-0.5	*-0.3**
Ireland		-0.6	0.8	0.3	0.0	0.0*
Luxemburg		0.9	-0.5	-0.5	-0.5	*0.3**
Euro area		**-0.5**	**-0.2**	**-0.7**	**-0.4**	**-0.4**

[(1)] Excluding one-off measures, as estimated by EUROFRAME-EFN (see table 2.4, for data up 2007. No one-off measures are expected for 2008 and 2009). The fiscal impulse is estimated here as the opposite of the change in the cyclically-adjusted primary balance, as estimated by the SP and excluding one-off measures.

*Own assumptions.

Sources: *Stability programmes*, Seventh updates, end 2005, own assumptions.

Table 2.4. GDP growth, fiscal balances in the EUROFRAME-EFN forecast and fiscal impulses under two estimates

	2003	2004	2005	2006	2007
Real GDP growth, per cent					
Germany	-0.2	1.1	1.1	2.3	1.5
France	0.9	2.1	1.4	2.2	2.0
Italy	0.4	1.0	0.0	1.0	1.4
Spain	3.0	3.1	3.4	3.3	3.1
The Netherlands	-0.1	1.7	0.9	3.0	3.1
Belgium	0.9	2.4	1.5	1.9	1.8
Austria	1.4	2.4	1.9	2.4	2.3
Finland	2.4	3.5	2.2	3.8	2.8
Portugal	-1.2	1.2	0.4	0.9	2.2
Greece	4.6	4.7	3.7	3.2	3.3
Ireland	4.4	4.5	4.8	4.7	4.4
Euro area-11 (1)	**0.8**	**1.8**	**1.4**	**2.2**	**2.0**
General government balance, per cent of GDP					
Germany	-4.1	-3.7	-3.3	-2.9	-2.5
France	-4.2	-3.7	-3.0	-2.8	-2.7
Italy	-3.4	-3.4	-4.1	-4.8	-4.4
Spain	0.0	-0.2	1.0	0.5	0.4
The Netherlands	-3.2	-2.1	-0.5	-1.0	-0.6
Belgium	0.3	0.0	-0.3	-0.5	-0.6
Austria	-1.3	-1.1	-1.7	-1.5	-1.5
Finland	2.3	1.9	2.6	2.7	2.1
Portugal	-2.9	-3.0	-6.1	-4.8	-4.1
Greece	-5.7	-6.5	-4.4	-3.2	-3.1
Ireland	0.2	1.4	0.1	-0.4	-0.5
Euro area-11	**-3.0**	**-2.8**	**-2.4**	**-2.4**	**-2.2**
One-off measures, per cent of GDP					
Germany	0	0	0	0	0
France	0	0.1	0.5	0.2	0
Italy	2.0	1.3	0.5	0.3	0
Spain	0	-0.7	0	0	0
The Netherlands	0	0	0	0	0
Belgium	0.0	0.0	0.4	0.6	0
Austria	0	0	0	0	0
Finland	0	0	0	0	0
Portugal	2.5	2.3	0.2	0	0
Greece	0.0	0.0	0.0	0.6	0
Ireland	0	0.5	-0.4	-0.2	0
Euro area-11	**0.4**	**0.2**	**0.2**	**0.1**	**0.0**
Fiscal impulse, under SP potential output growth assumptions, per cent of GDP (2)					
Germany	-0.7	-0.6	-0.7	-0.1	-0.5
France	0.5	-0.5	-0.8	-0.4	-0.3
Italy	0.9	-0.6	-0.5	0.3	-0.6
Spain	0.0	-0.4	-0.3	0.6	0.1
The Netherlands	0.5	-0.9	-1.6	0.9	0.2
Belgium	-0.2	1.1	0.5	0.4	0.2
Austria	0.7	0.1	0.6	0.1	0.2
Finland	1.8	0.5	-1.1	0.5	0.8
Portugal	-0.4	-0.3	0.1	-2.5	-0.7
Greece	1.7	1.6	-2.0	-1.3	-0.1
Ireland	-1.6	-1.3	-0.3	0.3	-0.2
Euro area-11	**0.2**	**-0.4**	**-0.6**	**0.0**	**-0.3**
Fiscal impulse, under NiGEM trend output growth assumptions, per cent of GDP (3)					

Germany	-0.4	-0.3	-0.4	0.1	-0.2
France	0.7	-0.3	-0.5	-0.2	-0.2
Italy	1.3	-0.3	-0.2	0.4	-0.5
Spain	-0.1	-0.2	-0.2	0.7	0.3
The Netherlands	0.5	-1.0	-1.5	0.8	0.0
Belgium	-0.1	1.1	0.6	0.5	0.3
Austria	0.6	0.0	0.7	-0.1	0.1
Finland	2.1	0.5	-1.0	0.4	0.7
Portugal	0.4	0.5	0.8	-2.0	-0.6
Greece	1.4	1.3	-2.0	-1.1	0.2
Ireland	-1.1	-0.7	0.4	0.9	0.1
Euro area-11	**0.4**	**-0.2**	**-0.4**	**0.2**	**-0.1**

(1) Excluding Luxembourg. (2) Excluding one-off measures. Fiscal impulse is the opposite of the change in the cyclically-adjusted primary balance, derived from EUROFRAME-EFN forecasts for GDP growth, fiscal balances and one-off measures, with potential output growth as in the stability programmes. (3) Excluding one-off measures. Fiscal impulse here is the opposite of the change in the cyclically-adjusted primary balance, derived from EUROFRAME-EFN forecasts for GDP growth, fiscal balances and one-off measures, with trend output growth as in NiGEM

Sources: EUROFRAME-EFN Spring 2006 forecast, *Stability programmes*, seventh *updates*, end 2005, Eurostat, own assumptions.

2.3 Progress on the Lisbon Agenda-Relaunch of the Lisbon Strategy

NATIONAL REFORM PROGRAMMES

The renewed Lisbon strategy focuses on two tasks: growth and jobs. Social cohesion and environmental goals may be better achieved in a favourable economic climate. The integration of economic and employment guidelines is a logical consequence of the focus on the two major tasks.

The Commission is initiating policy, the Member States are delivering programmes in which they specify their reform plans. This shift in emphasis from targets to policy measures is a clear improvement. But so far, these important national reform programmes are not much debated in parliaments and in the public. This deficit in many Member States should be eliminated.

REVISION OF THE SHORTLIST OF STRUCTURAL INDICATORS

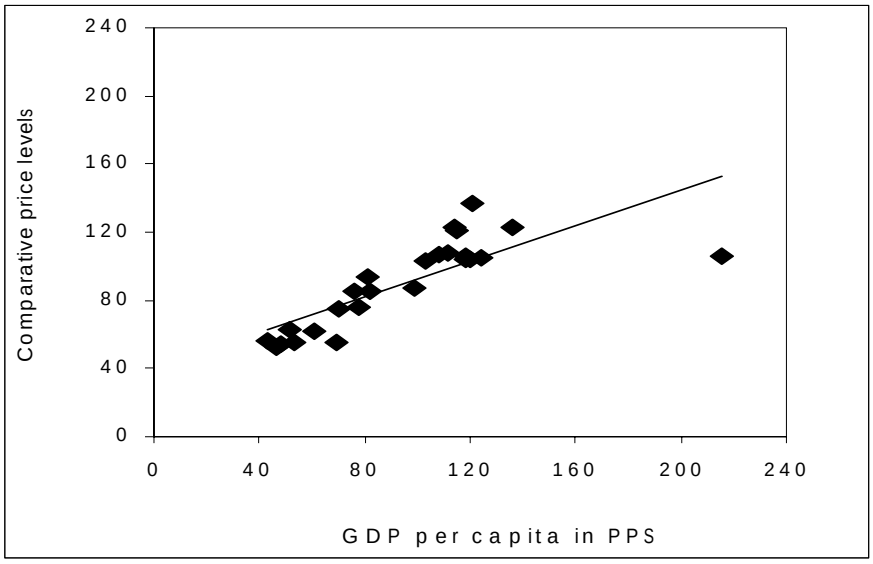
The EU structural indicators provide useful statistics for assessing progress towards meeting the Lisbon objectives. The short-list of 14 structural indicators by and large meets the requirements formulated by the Economic Policy Committee. They are policy-relevant, easy to comprehend and broadly comparable internationally. The risk that governments lose sight of their economic policy by focusing on "window dressing" with regard to the indicators is diminished by the implementation of the National Reform Programmes.

Unfortunately, the EU structural indicators are sometimes misused for the purpose of an international "beauty contest". Some countries are proud of the level reached, others of the development of indicators in recent years.

There is one indicator in the shortlist of structural indicators which does not seem to be appropriate: the relative price level of the consumption of private households (in relation to the EU average). A low relative price level is supposed to reflect high intensity of competition and thus the success of economic reforms. However, there is a very close positive correlation between the relative price level and GDP per head (see Figure 2.2). The indicator is a

proxy for GDP per head and not measuring the degree of competitiveness. It should be replaced in this year's revision process.

Figure 2.2 GDP Per Capita and Price Levels, Comparison of EU-25 Countries, EU25=100



Source: Eurostat, WIFO

ACHIEVEMENTS IN THE LISBON PROCESS

One of the key goals of the Lisbon strategy is to raise the level of GDP per head, with particular attention being paid to the US as a benchmark. Since economic growth in the EU fell behind this target, the Lisbon process was sometimes called a failure.

There was some achievement on the labour market due to higher flexibility. The employment rate, particularly for women and older workers, increased in many Member States. This was, however, mainly achieved by additional part-time work. Full-time employment decreased in the EU from 139.5 million in 2002 to 138.7 million in 2004. As the majority of unemployed is looking for full-time jobs, this is one of the reasons for the stickiness of unemployment due to lack of effective demand.

OPERATIONALISING COMPETITIVENESS

The European Union is striving to become the most competitive region in the world. But what is most competitive?

Productivity appears to be one of the best indicators of competitiveness. GDP per hour and total factor productivity are the most useful concepts. But due to statistical limitations, GDP per employee is commonly used.

There is no explicit target for productivity increases in the EU. However, if the "informal" targets for economic growth (3 percent per annum.) and the employment rate were achieved, this would imply a productivity increase of slightly more than 1 percent per year. This is not sufficient to become the most competitive economy in the world.

The Lisbon strategy gives equal importance to increasing both, productivity and employment through higher competitiveness. In dynamic industries, a rise

in productivity can enhance employment. However, in recent years of under-utilised resources there existed a temporary trade-off between employment and productivity in some Member States: The increase in employment was achieved at the cost of productivity developments. Productivity can also be affected by labour market conditions: High unemployment may exert downward pressure on productivity since the unemployed have to accept low-productivity jobs. Shortage of labour, on the other hand, raises productivity since jobs at the lower-productivity end disappear.

There are explicit targets for several factors behind productivity growth:

- Research and development is targeted at 3% of GDP. So far, improvement in this most important field was rather limited.
- The share of young people without further educational attainment is to be cut by one half. Here again, there was hardly any improvement in recent years.

Besides R&D and education there is a crucial effect of investment on growth. Investment is reflecting demand and supply conditions - capacity utilisation and reform policy. Higher investment in machinery and employment is necessary to make use of higher R&D and education. In the Euro area, however, the rate of business investment has declined since 2000. Moreover, infrastructure investment was cut in many countries to achieve the Maastricht criteria.

HIERARCHY OF POLICIES IN THE EU

Why had the Lisbon Agenda only limited success? One reason may be the institutional setting. Top priority in the EU has the internal market strategy. The basic four freedoms of goods, capital, services and labour markets have to be accomplished according to European law. There may be transition periods, but no exceptions at the end.

High priority is given to fiscal and monetary stabilisation policies. The Maastricht criteria must be met by the members of the Euro area - if not, there are sanctions. Monetary policy is carried out by the ECB according to law.

The Lisbon strategy is given low priority in the EU. In contrast to the Stability and Growth Pact there are no institutions to force the achievement of targets. There is now even some discussion on dropping the goal for economic growth since it is not achieved. Who is in charge of the Lisbon process? [OMC] The open method of coordination has been adopted, but sometimes responsibilities have been muddled between the EU and its Member States. Thus, from an institutional perspective, the limited success of the Lisbon strategy is not a surprise.

Much attention of national governments is devoted to the Stability and Growth Pact, much less to the Lisbon Agenda. Many Member States cannot increase their expenditures on R&D, education and infrastructure and at the same time reduce their fiscal deficit which is "suffered" by low growth (i.e. by the cyclical component).

Unlike the Single European Market and the Growth and Stability Pact, the Lisbon Agenda has not captured so much interest of a wider academic community. But this is not the fault of the Lisbon Agenda. Many economists have thought that the free internal market together with sound macroeconomic policies would automatically lead to higher economic growth.

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SPECIAL POLICY TOPIC:

CONVERGENCE AND INTEGRATION OF THE NEW MEMBER STATES TO THE EURO AREA

3. CONVERGENCE AND INTEGRATION OF THE NEW MEMBER STATES TO THE EURO AREA

3.1 Introduction

In May 2004, ten new member states joined the European Union, of which eight were former transition economies. The new member states are now members of EMU with a derogation regarding the introduction of the common currency. They do not have a right to opt out as Denmark and the United Kingdom and are hence obliged to prepare for the adoption of the euro. This includes meeting the nominal convergence criteria, i.e. low inflation and long-term interest rates, fiscal deficits not exceeding 3% of GDP, government debt below 60% of GDP, and exchange rate stability against the euro assessed through the participation in the ERM-II for a period of at least two years without devaluing against the euro[1]. Despite the general obligation to adopt the euro, no concrete date was set by which the countries had to have fulfilled these convergence criteria. The countries have some room as regards the exact timing and implementation of policies during the preparation phase since the precise entry date to the euro area may differ across individual countries. Most new member states aim at an early entry. Seven countries have already fixed their exchange rates within the ERM-II (cf. Table 1); three of which (Estonia, Lithuania and Slovenia) are preparing to adopt the euro in January 2007. The Czech Republic plans to enter ERM-II in autumn of 2007[2]. The remaining two countries have not yet indicated a target entry date to ERM-II.

Table 3.1: ERM-II Entry and Targeted Date of Euro Adoption

	ERM-II entry	Targeted date of euro adoption
Cyprus	May-05	2007 – 2008
Czech Republic	*Autumn 2007*	2010
Estonia	Jun-04	2007
Hungary		2010
Latvia	May-05	2008
Lithuania	Jun-04	2007
Malta	May-05	2008
Poland		2010
Slovakia	Nov-05	2009
Slovenia	Jun-04	2007

[1] In addition, the convergence performance will include the examination of the compatibility of national legislation with the Treaty and with the Statute of the European System of Central Banks (ESCB) and of the European Central Bank (ECB). Although not necessary conditions for the adoption of the euro, additional factors relevant to economic integration and convergence will be also assessed including financial and product market integration and the balance of payments.

[2] Cf. Czech Ministry of Finance, November 2005.

The adoption of the euro by the new member states will not only significantly change the policy options available to them, but it may also bear on the euro area as a whole. The new member states, the eight former transition economies in particular, are undergoing a process of catch-up growth. Their main economic concern is to facilitate a smooth process of convergence in income levels with the current euro area. For a number of years now they have recorded growth rates exceeding that of the euro area by a wide margin. Whereas growth in the euro area amounted to close to 2% during the past five years, the Central European countries grew on average by 3-5% and the Baltic States by 7% per annum. Once converted to euros at the current exchange rate, even higher growth rates have been experienced in GDP per capita terms ranging from 5% in Slovenia to 13% in the Baltic states, Hungary and Slovakia (cf. Table 3.2). Being a member of the monetary union offers many chances and benefits for catching up in income levels; on the other hand, the fixed exchange rate and the common interest rate also bear risks and challenges. In addition, EMU affects available fiscal policy options under the constraints of the Stability and Growth Pact.

Table 3.2: GDP and population in the enlarged euro area

	Population in millions	**Population**	**GDP EUR million**	**GDP in EUR**	**GDP/cap in EUR**	**GDP/cap in EUR** ave growth rate between 2000 and	**GDP/cap in EUR**	**GDP/cap in PPS**	**GDP/cap in PPS** ave growth rate between 2000 and	**Real GDP, national currency**
2004	share of EU-22	**2004**	share of EU-22	**2004**	1995	2004	2004	1995	2004	**2004**
Germany	82.5	21.4	2215650	27.1	26900	23600	**1.9**	24600	18500	**1.2**
France	62.2	16.1	1648369	20.1	26500	20200	**3.1**	24800	17600	**2.1**
Italy	58.2	15.1	1351328	16.5	23200	15000	**3.4**	23300	17900	**0.9**
Spain	42.7	11.1	837316	10.2	19600	11600	**6.2**	22100	13500	**3.5**
Netherlands	16.3	4.2	488642	6.0	30000	20500	**4.9**	28200	18200	**1.3**
Belgium	10.4	2.7	288089	3.5	27700	21400	**3.5**	26800	18700	**2.0**
Austria	8.2	2.1	237039	2.9	29000	23100	**3.0**	27800	19500	**1.8**
Greece	11.1	2.9	167169	2.0	15100	8500	**6.9**	18400	10900	**4.4**
Finland	5.2	1.4	149725	1.8	28600	19600	**4.1**	25400	16100	**2.9**
Ireland	4.1	1.1	148557	1.8	36600	14300	**8.7**	31000	15200	**6.1**
Portugal	10.5	2.7	142297	1.7	13500	8700	**3.8**	16300	11600	**1.3**
Luxembourg	0.5	0.1	25664	0.3	56600	33800	**5.6**	51200	27000	**4.1**
EU12	312	80.8	7728235	94.4	24800	18300	**3.5**	24000	17000	**1.9**
Poland	38.2	9.9	203711	2.5	5300	2800	**5.7**	11100	6300	**3.2**
Czech R	10.2	2.6	86787	1.1	8500	4100	**9.6**	15900	10600	**3.1**
Hungary	10.1	2.6	81115	1.0	8000	3300	**12.8**	13600	7500	**4.4**
Slovakia	5.4	1.4	33119	0.4	6200	2800	**12.2**	11700	6800	**4.1**
Slovenia	2.0	0.5	26146	0.3	13100	7800	**5.1**	17900	10500	**3.4**
Lithuania	3.4	0.9	18083	0.2	5300	1300	**12.9**	10800	5200	**7.1**
Cyprus	0.7	0.2	12533	0.2	16900	10800	**5.2**	18800	12500	**3.4**
Latvia	2.3	0.6	11167	0.1	4800	1500	**11.7**	9700	4500	**7.7**
Estonia	1.4	0.4	9043	0.1	6700	2000	**12.0**	11600	5200	**7.2**
Malta	0.4	0.1	4269	0.1	10600		**2.5**	15700		**1.3**
EU22	386		8185817							

The enlargement of the euro area may not affect the new entrants alone. Although the new member states are rather small economies with a combined GDP at current prices of 6% of the enlarged euro area (cf. Table 2), heterogeneity in growth and inflation rates will further increase. This may raise the risk that not all countries will benefit to the same extent from the single currency given that monetary policy might not be appropriate to the cyclical position in all individual member states at any given time. The process of monetary integration has already provoked a debate and a large body of literature[3], on both the consequences of the euro area enlargement and the preparation process. Similar to the case before the inception of the current euro area, the main focus is – whether monetary union is a suitable framework for countries at different stages of development or with varying economic structures that may have different needs as regards monetary policy and exchange rate flexibility.

This report tries to evaluate some consequences of the euro area enlargement on both the entrants and the monetary union as a whole. Firstly, it summarises how membership in a monetary union affects the participating countries. Secondly, the main challenges for the new member states are reviewed, in particular their potential additional adjustment needs arising due to the process of catch up growth. It also investigates how the alternative adjustment mechanisms such as the labour market, real wage flexibility and fiscal policy function. Finally, we address some issues of the preparation process and examine the implications for the functioning of the enlarged euro area.

3.2 Adjustment in the EMU: overview of issues

Membership of a monetary union implies that the exchange rate with other union members is fixed and that the interest rate is determined in the integrated financial market, i.e. it reflects the average conditions in the member states. The fixed exchange rate and the common interest rate can *at the same time* imply benefits and risks for the member states of the monetary union. Whether the benefits outweigh the costs depends on the characteristics and economic policies implemented by the member states.

The benefits arise from an enhanced functioning of the single market, which is supported by higher transparency, a reduction of transaction costs and exchange rate risk. The elimination of exchange rate variability is expected to lead to an increase in trade between the member states of a monetary union[4]. In particular for small open economies, macroeconomic volatility stemming from exchange rate fluctuations might be reduced. The SGP requirement of a balanced budget on average may reduce interest payments from debt servicing thereby further supporting economic growth. For the countries in the process of catching up, membership of the euro area may serve to lower interest rates and allow better access to foreign financing[5] as the capital markets in the current euro area are deeper, more liquid and more transparent. Moreover, the countries are protected against currency crisis.

The potential costs of monetary union membership arise from the adjustment to changing supply and demand conditions, as is the case after shocks or during the growth process and the business cycle. Traditionally, the costs of joining a monetary union have been judged by the optimum currency area

[3] See for example de Grauweand Lavrac (1999), Schadler et al. (2005); Detken et al. (2005), Dabrowski and Rostowski (2006)

[4] Schadler et al. (2005, p. 15) report gains in trade for the new member states of up to 60% in the next twenty years due to euro area membership.

[5] Reciprocally, the investment opportunities combined with higher transparency and lower exchange rate risk are an advantage for investors.

(OCA) criteria and focus on adjustment processes after asymmetric *shocks*, i.e. a sudden change in economic conditions that causes deviations between supply and demand in one country. To maintain a given employment level, a change in the real wage will be needed to adjust to a permanent change in the demand and supply conditions. In the absence of a nominal exchange rate, the adjustment in the real exchange rate has to be brought about by the prices and wages themselves. If the adjustment of wages and prices is sluggish, membership in a monetary union may create costs in terms of unemployment and income compared with a situation where the exchange rate reacts flexibly instead[6]. If a shock is merely transitory, in principle fiscal and monetary policy may mitigate the impact of the shock on employment and income. However, within monetary union, a country cannot adjust the interest rate to its own needs, as the rate is determined by the integrated financial market as a whole. Fiscal policy alone can be used for demand smoothing.

In the theories of optimum currency areas (Mundell (1961), Kenen (1969), McKinnon (1963)), the potential costs of adjustment within a monetary union are discussed mainly with reference to asymmetric shocks, i.e. targeting a single country of the monetary union and requiring adjustment on the part of this country alone. If asymmetric shocks are likely, e.g. based on economic structures, foreign trade integration or financial integration, the adjustment needs of a country might be different from the rest of the monetary union. However, this is not the only situation when the monetary policy stance may bear on countries differently. A potential problem for the member states arises from the fact that if an asymmetric shock hits a large country, i.e. one that can affect the development of the entire union, the central bank might adjust interest rates and hence change the monetary conditions for all countries involved. In such a situation, the monetary policy response may not be the most appropriate for any country. Similar problems arise in the case of a symmetric shock to which the individual countries react in an asymmetric manner. This can give rise to differences in the cycle between countries and the single policy response may become inappropriate for some member states. The same holds if monetary policy is transmitted in a different manner and if business cycles are not synchronic between the member states. In the worst case scenario, the differences may become so large that monetary policy cannot react.

Therefore, in a monetary union the interest rate will support adjustment after a shock and during the business cycle only if shocks are reacted to in a similar manner and the cycles are synchronised. If not, the interest rate may even impede smooth adjustment. Moreover, the real interest rate channel may exacerbate the effect of an inappropriate monetary policy stance. Countries with higher inflation rates face lower real interest rates and vice versa, which may lead to higher cyclical volatility and persistence in the cyclical differences among the member states (cf. Deroose et al. 2004). Also, adjustment through a loss in competitiveness may take more time within a monetary union because of easier access to financing current account deficits. This might reduce the pressure from declining competitiveness.

In principle, fiscal policy is still available for stabilisation during the cycles. However, in the EMU the size of public deficits is regulated by the Stability and Growth Pact. In addition, in the absence of coordinated European fiscal policy, different fiscal reactions to shocks (either asymmetric or symmetric) or differences in fiscal reforms and their impacts on the business cycles in the member states might also contribute to asymmetries in the monetary policy

[6] This need not be the case even if there is a flexible exchange rate regime.

stance among the countries. As a consequence, although some sources of macroeconomic volatility such as exchange rate movement among the member states are eliminated in the monetary union, macroeconomic volatility might even increase as some stabilising channels work in a different way.

The potentially negative effect of the single monetary policy on the adjustment to shocks in a monetary union was questioned because of possible endogeneity of the OCA criteria (Frankel and Rose 1998). Trade and financial integration may be fostered by the inception of monetary union; adjustment through the wage determination and price setting may be enhanced (Calmfors 1998; for a recent overview of possible endogeneity of structures in a monetary union cf. de Grauwe and Mongelli 2005). Financial integration not only allows for portfolio diversification and risk sharing, but also increases the correlation of markets and the joint susceptibility to shocks. The potential costs of monetary union due to ex-ante differences may become smaller after its inception.

Countries undergoing *catch-up growth* face particular benefits but also adjustment and stabilisation challenges when forming a monetary union with more developed countries. Catch up growth requires large investments in the capital stock of the economy comprising machines and equipment, housing and infrastructure. Prudent but vigorous investment decisions are needed for the growth potential to materialise; a stable macroeconomic and financial environment is needed to secure a smooth growth process. The growth process can continue along side capital inflows and current account deficits, real currency appreciation, financial deepening and extensive credit growth. All these phenomena may be part of the sustainable growth process, but they can also indicate unsustainable imbalances. Deviations of supply and demand can emerge that might need correction.

Current account deficits may not be a matter of concern if the accompanying capital inflows finance efficient investment projects that speed up growth. On the other hand, the need to service the foreign (currency) debt and the vulnerability to sudden swings in capital flows create challenges for a smooth growth process. In particular, emerging economies with shallow financial markets are faced with the risk of speculative attacks on their currency. Being a member of the euro area will both reduce these risks and the cost of financing the growth process through foreign capital, which is an immense benefit for the new member states. Nevertheless, current account sustainability is also an issue within the euro area through the impact on the debt of households, firms and the government. For the growth process to be smooth, sufficient income must be produced to service the debt without changes in the real exchange rate by adjustments in the real wage. Admittedly, for most of the new member states with their restricted nominal exchange rate flexibility and liberalised capital flows, the adjustment through the nominal exchange rate is not always available anyway. Nevertheless, membership of the euro area may increase the risk of large volatility in income and employment because current account deficits may become easier to finance. The needed adjustment process may set in only later and with higher swings in output and employment. A similar challenge is related to maintaining financial stability in the growth process. Membership of the euro area will reduce the cost of investment due to lower risk or exchange rate premia, which may boost the convergence in real income levels. On the other hand, banks may start to grant credit too easily or may lack capacity to monitoring the borrowers sufficiently. Financial stability might be endangered if the investments turn out less profitable than expected. All in all, the new member states can gain enormously from the membership in the euro area, but only if the advantages from the easier financing of the *potential* growth are properly exploited and macroeconomic policies adequately set.

Therefore, when trying to evaluate the effects of the enlargement of the euro area, it is important on the one hand to study the possible adjustment needs and alternative adjustment tools of the new member states, and the consequences for heterogeneity in the euro area as a whole on the other.

3.3 Adjustment needs and adjustment tools in the new member states

LIKELIHOOD OF ASYMMETRIC SHOCKS: SIMILARITIES IN THE ECONOMIC STRUCTURE AND THE BUSINESS CYCLE

Indicators of optimum currency areas form a starting point for an evaluation of the advantages and disadvantages of the membership in monetary union. These can be assessed by examining the similarities in the production and employment patterns or trade links as proxies for the probability of the simultaneous occurrence of a shock.

Table 3.3 and 3.4 show the employment and value added shares of the six main sectors in the new member states and the euro area, and the share of the euro area in the foreign trade of the new member states[7]. The data in Tables 3.3 and 3.4 indicate that the differences in the structure of the economies can be quite large in some countries when compared with the euro area. By contrast, the new member states are strongly integrated with the euro area through trade. This makes it quite likely that the NMS will be affected by shocks hitting the euro area; on the other hand the share of the NMS in the euro area's foreign trade is increasing but the direct effect of shocks in these countries on the current euro area may be limited.

Table 3.3: Structure of Employment and Added Value, 2004

	Employment						Value Added, current prices					
	Agriculture (AB)	Industry (CDE)	Construction (F)	Trade (GHI)	Finance (JK)	Public services (L_P)	Agriculture (AB)	Industry (CDE)	Construction (F)	Trade (GHI)	Finance (JK)	Public services (L_P)
EU12	4.5	18.2	7.5	24.9	15.0	30.0	2.2	20.7	5.9	21.1	27.2	22.8
CZ	4.2	29.0	8.6	25.6	11.3	21.5	3.3	31.0	6.9	25.4	16.3	17.1
EE	5.7	27.0	7.6	24.8	7.9	26.8	4.3	22.2	6.7	28.2	20.7	18.0
CY							3.5	12.0	8.0	28.3	23.9	24.3
LV	12.5	18.1	8.5	26.9	7.5	26.5	4.1	16.8	5.8	35.4	18.2	19.7
LT	15.8	20.1	8.0	24.6	4.9	26.6	5.9	25.5	7.2	32.3	12.4	16.8
HU	5.1	25.0	7.9	25.5	9.2	27.3	3.8	26.1	5.1	20.5	20.5	24.0
MT							2.3	19.5	4.6	27.6	19.9	26.1
PL	19.2	22.1	4.7	22.5	9.1	22.3	5.1	25.4	5.6	18.9	7.2	14.9
SI	10.5	28.4	7.2	21.1	12.5	20.2	2.5	29.5	5.7	21.0	20.3	20.9
SK	3.9	27.6	6.7	27.5	9.2	25.1	3.9	26.5	5.6	25.8	21.3	16.9

Numerous investigations of the convergence of business cycles between the Euro Area and the NMS have already been undertaken. However, given the short time series of the new member states, estimations of the cycle and the effect of shocks are still very uncertain. In a meta-analysis, Fidrmuc and Korhonen (2004) find that correlations between the business cycles of CEE countries and the euro area are quite high, but depend on the estimation methodology. The correlation of supply shocks seems to be higher then that of demand shocks (cf. Schadler et al., 2005). In a very comprehensive study,

[7] A comprehensive overview of structural similarities and dissimilarities is given in Angeloni et al. (2005)

Darvas and Szapary (2004) test the development of comovement among euro area countries on the one hand, and CEEC countries and the euro area on the other. They find first that comovement has increased in the euro area since the run-up to monetary union. Second, the comovement has also increased between some CEEC since the late 1990s (most notably Slovenia, Hungary and Poland), but remains limited in some others (the Baltic states and the Czech Republic).

Table 3.4: Trade Shares, 2005

	euro area			EU except euro area			Extra EU-25		
	Imports	Exports	average	Imports	Exports	average	Imports	Exports	average
Czech Rep	62	60	61	19	25	22	19	15	17
Estonia	46	41	44	30	37	34	24	22	23
Cyprus	55	49	52	13	20	17	32	31	32
Latvia	34	24	29	41	53	47	25	23	24
Lithuania	32	29	31	27	37	32	41	34	38
Hungary	53	59	56	14	17	16	32	23	28
Malta	61	37	49	14	14	14	25	48	37
Poland	58	54	56	17	23	20	25	23	24
Slovenia	67	53	60	12	13	12	22	34	28
Slovak Rep	47	53	50	32	32	32	21	14	18

All in all, such tests can give some rough indication of the occurrence of asymmetric shocks based on past developments. These however may have been dominated by structural change in the transition process. At the same time, country specific shocks can hit the new member states because of the process of catching up growth, in particular due to real appreciation, imbalances between demand and supply connected with capital inflows and financial deepening.

REAL APPRECIATION OF THE CURRENCY

For a number of years already, all eight new member states that are former transition economies have recorded real appreciation vis-à-vis the euro. The graphs in the Appendix show the nominal and real exchange rates of these countries to the euro (and the euro area) and for effective measures based on a different number of trade partners (with the effective rate towards 41 trade partners being the most comprehensive one). For every country, there are two graphs, one showing the development from 1994, the second beginning in 2000. Table 5 summarises the development of some indicators of the real and nominal exchange rate.

Over the longer horizon, real appreciation has been observed in all countries. In the short to medium term however the exchange rate regime and nominal exchange rate movements have had some impact on the real exchange rate development. In particular in the countries with exchange rates appreciating in nominal terms such as the Czech Republic, Slovakia and to some extent also Hungary, real appreciation has been sizeable since 2000. The large swing in the nominal exchange rate of the zloty since 2000 has been reflected in a very similar development of the Polish real exchange rate. By contrast, the steady depreciation of the Slovene tolar up to mid-2004 was only accompanied by a moderate real appreciation. The Baltic states have run fixed exchange rates, Estonia only having done so towards the euro (deutsche mark) since the inception of its currency board. Lithuania pegged the exchange rate to the euro in 2002, Latvia in 2005. Therefore in the latter two cases the exchange rates

show variation. A particular case is Latvia. Due to the peg to the SDR before 2005 it experienced a trend nominal and real depreciation of its currency towards the euro area after 2000, which stopped only with the fixing of the exchange rate towards the euro.

Table 3.5: Nominal Exchange Rates to the EUR$^{\phi}$

	Czech Rep	Estonia	Hungary	Latvia	Lithuania	Poland	Slovak Rep	Slovenia
Real exchange rate based on consumer prices								
1994-2005	-40.1	-51.8	-33.8	-42.5	-60.2	-35.1	-45.9	-17.9
2000-2005	-18.2	-8.6	-22.6	13.5	-2.6	-4.2	-25.7	-2.9
Real exchange rate based on producer prices								
1994-2005	-32.4	-38.7	-20.1	-25.6	-57.2	-23.6	-35.3	-3.4
2000-2005	-16.1	0.6	-7.8	14.0	-6.5	-1.7	-20.4	2.8
Nominal exchange rate to euro								
1994-2005	-12.4	1.6	97.4	4.8	-27.0	50.1	1.5	56.8
2000-2005	-15.9	0.0	-5.1	24.4	-6.6	1.3	-9.3	16.0

$^{\phi}$based on CPI and PPI

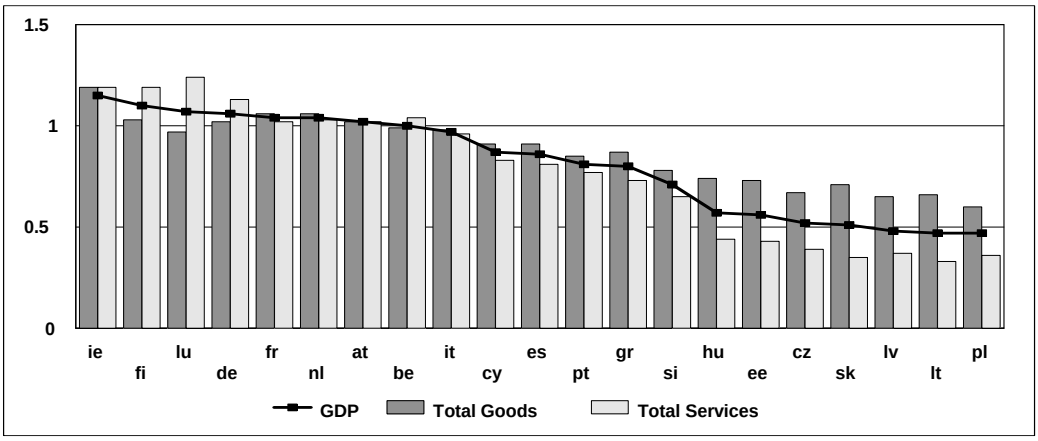
The sizeable real appreciation in some countries may signal deteriorating competitiveness and might need to be corrected by real depreciation later. However, because of the catch up growth process, a part of the real appreciation of the EU-8 exchange rates can be an equilibrium phenomenon and may not require adjustment. As is presented in more detail in the background paper by Lommatzsch and Wozniak, the price levels in the new member states are significantly lower than in the euro area. In some countries, the price levels amount to close to 50% of the euro area level. It is widely held that the low price levels are related to the lower income levels and that the process of catch up growth will entail price level convergence.

The price level differences and the price level convergence process are most often interpreted along the lines of the Balassa-Samuelson model (Balassa 1964, Samuelson 1964) which reveals why price levels of poorer countries tend to be lower than price levels of countries with higher income. The economy is divided into a sector producing internationally traded goods and a sector with non-traded goods. The latter mainly comprises labour intensive services that are immediately consumed. The traded goods sector charges prices in accordance with PPP, and pays wages in accordance with its productivity. Hence countries with high productivity in the traded goods sector have higher wages, and countries with low productivity have lower wages. If these wages have to be paid throughout the entire economy because of wage equalisation, and wage costs are the main determinant of prices, and services will be cheaper in the less productive country. Dynamically, catching up in productivity levels in the traded goods sector implies catching up in the prices of services and hence price level convergence.

In the Balassa-Samuelson model, differences in price levels and the price level convergence are based on service prices only. Indeed, in the new member states the price levels of services are particularly low (cf. Figure 3.1), but lower price levels are found also in goods, and most importantly in non-durable consumer goods. Consequently, other causes of the deviation in price levels have also to be considered. Differences in the quality and variety of the representative goods and services, as well as possible differences in the reputation of domestic and foreign goods might impact on the price level (cf. the background paper by Lommatzsch and Wozniak). An improvement in the

quality and reputation of goods produced in the economies catching up may even lead to a trend appreciation of the producer prices deflated real exchange rate (see also Égert et al. 2005). Furthermore, the former planned economies started the transition process with a distorted system of relative prices. Most prices have been freed rather quickly, however, some socially sensitive prices have only been liberalised steadily, some of which are still in the process of adjustment. The variety and quality of services increases during the process of catching up, this is perhaps most pronounced in the financial market, the real estate market and in business services. At the same time, a number of public services requiring networks and capital were of rather poor quality during the planned period. Telecommunications, transport (railways, roads) and the transport equipment, energy and water supply all require upgrading of the capital stock and the networks. This should raise the quality of these services, and may also affect their price, both within the economy and their relative price to the euro area. This may also indirectly bear on the prices in the rest of the economy, if these services constitute intermediate products or allow the economy to increase the range and quality of other supplied products.

Figure 3.1: Relative price levels of GDP, total goods and total services, 2004



Therefore, based on a number of channels, the growth process is connected with a rising price level defined as the average price of the goods and services produced and consumed in the economy. However, it has to be stressed that this need neither be fully reflected in the inflation rates of the countries catching up, nor in the relative price level data published by the Eurostat/OECD project on price level comparisons. Whereas relative price levels are calculated based on the comparison of prices of (ideally) *identical* or at least very similar products that allow comparison, the average price level of an economy will be determined by the variety and quality of the goods produced and consumed. The main characteristic of the transition and catching up growth process, i.e. steady structural change towards a higher quality and higher variety of the products, cannot be (by definition) adequately reflected in the relative price level and its changes. In sum, price level convergence (defined over the price level of a representative basket of goods and services in an economy) will occur through, first, a change in the structure of the representative goods and services, second an increase in the quality and variety of the goods and services and, third, higher prices of services in line with the BS model and increases in regulated prices. The latter may have additional effects on the entire price level if they are intermediate goods. Only the third channel should be reflected in higher inflation rates (and a sustainable real appreciation) vis-à-vis the more developed countries on a systematic basis.

However, insufficient adjustment for quality improvements will have a similar effect and may moreover also concern the industrial goods prices.

At the same time, not all of the real appreciation needs to be an equilibrium phenomenon related to the process of catching up. Other factors such as inflation due to wage growth, higher inflation expectations, credit growth and capital inflows may also affect the inflation rate. Therefore, the question of how much of the real appreciation is equilibrium and how much is not, is a very complicated issue. Many investigations have already been made to establish the size of the equilibrium real appreciation, and the results are not always conclusive (for an overview of studies cf. Égert et al 2005). The background paper of Fic, Barrell and Holland contains an estimation of the equilibrium exchange rate based on the FEER model. The real exchange rate is estimated from the perspective of the trade balance and external debt sustainability. The introduction of a debt target allows the FEER model to be extended from the medium to the long run. Imports depend on the domestic income growth and the price competitiveness, whereas exports depend on foreign income growth and price competitiveness. In addition, the estimations include a factor reflecting the upgrading of the supply sides in the new member states, FDI inflow. The estimations of Fic et al. indicate that the observed real appreciation of the currencies can indeed be traced back to the catching up growth and might consequently be sustainable. Table 3.6 shows the estimated equilibrium appreciation of the real exchange rate in 2005. However, the speed of equilibrium appreciation has substantially declined since the early years of the transition; and has been on average more pronounced in the Baltic States than in the Central European countries.

Table 3.6: Estimated Equilibrium Appreciation of the Real Exchange Rate in 2005

	Czech Rep	Estonia	Hungary	Lithuania	Latvia	Poland	Slovenia	Slovak Rep
2005	1.8	2.0	1.6	3.6	1.8	1.6	1.2	4.1

In the next few years, the central European countries could expect a further real appreciation of 1-2% per annum., and the Baltic states of 2-3% p.a. Lower gains in non-price competitiveness and growing income payments (profits, dividends, interest) due to the accumulated foreign debt may limit the real appreciation in the more distanced future.

CURRENT ACCOUNT DEFICITS

Another salient feature of most new member states is current account deficits. These are quite large in some countries (see Table 3.7 in the appendix). As in the case of the real appreciations, this might indicate unsustainable imbalances but can also be related to the catching up growth process.

The intertemporal model of the current account (e.g. Obstfeld and Rogoff 1994) explains why countries in the catching up process run external deficits. In this model the current account is viewed as the result of savings decisions of intertemporally maximising consumers on the one hand and high investment to realise the growth potential on the other hand. Because of unrestricted capital flows, a country can make debts, implying the following budget constraint of the economy:

$$(Y_t - C_t - G_t - I_t) - rB_t = B_{t+1}$$

Consumers will maximise lifetime utility by choosing a smooth path of consumption based on the expected lifetime income and the interest rate. With

an expected higher income in the future, the economy will run current deficits in the early years and repay the debt later. According to the model a country can run current account deficits as long as the (expected) future income is large enough (cf. e.g. Lipschitz et al. 2002 for estimates of how large current account deficits might become in the former transition economies). The equilibrium condition of such process only requires that the debt cannot grow forever, i.e. it has to converge to zero in the limit.

Yet, the intertemporal model of the current account focuses on the higher welfare gains due to the consumption smoothing. It neither considers the role of the financial system in determining and monitoring efficient investment opportunities, nor whether the use of foreign savings to finance the growth may create additional problems. In reality there is no size of the current account deficit that is safe given a high growth *potential*. First, the smooth development of a country running current account deficits critically hinges on that higher output and income indeed materialises, such that the debt can be serviced and repaid without major demand adjustment. In the absence of nominal exchange rate flexibility, this could require real wage and price adjustment and might come at an output and employment cost. Second, the capital flows related to the current account imbalances create problems of their own. Ample literature exists on the vulnerability of countries running current account deficits. Current account imbalances always imply the risk that a country cannot attract sufficient financing to sustain its level of excess demand and hence, has to suddenly correct its demand level. Whereas this can be triggered by an unsustainable level of domestic demand, a similar consequence will follow if investors' sentiments suddenly change due to perceived or real problems in the domestic economy or if the international interest rate unexpectedly shifts. Large current account deficits are also a warning signal of currency crisis (e.g. Kaminsky and Reinhart 1996). In particular, when combined with other vulnerabilities such as real appreciation, fiscal deficits (i.e. "twin deficits"), weaknesses in the banking system, short-term financing of the current account deficit or inconsistent policies, emerging countries are exposed to currency speculation and currency crisis (cf. Kaminsky 2003; and Roubini and Wachtel 1998 for an application to transition economies).

For the new member states, membership of the euro area will reduce the risks related to sudden reversals of capital and the consequences thereof on the currency and the nominal exchange rate. Risk premia will be reduced. As a result, capital inflows might even increase after the introduction of the euro. However what it does not change is the obligation to service and repay the debt; or – as in the case of FDI – to transfer profits. In fact, the indebtedness of the new member states may increase as domestic savings might be depressed due to the lower interest rate and the better access to foreign financing. The capital flows may become less determined by currency related considerations, and will be oriented only by the risk of the investments and future growth. As elaborated in Blanchard and Giavazzi (2002), the membership in the euro area has significantly contributed to the widening current accounts in Portugal and Greece and the sustained imbalances between demand and supply. However, the example of Portugal also shows that the high indebtedness of the households can require substantial adjustment later, which comes at the cost of low income growth and higher unemployment rates (cf. Blanchard 2006). Therefore, for a smooth process of catching up it is of utmost importance that the investment opportunities are carefully chosen and controlled in order to realise the expected growth and higher income.

In the EU-8, all countries with the exception of Slovenia, either run high current account deficits or have at some point during the past ten years run high deficits. The highest deficits are recorded in the Baltic states with

magnitudes of close to or even exceeding 10% of GDP (cf. Table 3.7 in the appendix). Rather large deficits have been recorded also in Hungary with 8% of GDP. Table 3.7 also shows that FDI have been an important source for financing the current account deficits. Consequently, income payments have become quite sizeable in some countries (Czech Republic, Estonia; in Hungary income payments were large since the outset of the transition also due to the high debt inherited from the planned system). So far, some income payments are reinvested in these economies and hence have not directly affected the foreign exchange market. For the potential adjustment processes within the enlarged euro area it might be important to note that in some countries improvements of the trade balance have occurred despite real appreciation of the currency (Slovakia, Czech Republic, Estonia, Hungary). This underlines the possible influence of supply side upgrading and growing non-price competitiveness on the trade performance. On the other hand, the worsening of the trade and current account in Latvia during the recent years has occurred against the background of nominal (effective) depreciation of the currency. Estimations about whether or not the size of the current account deficits of the new member states are in line with their expected growth and the size of the foreign debt were made e.g. by Zanghieri (2004) and Bussiere et al. (2004). The low level of foreign debt and the fact that FDI still have an important share in the financing of the deficits support the sustainability of the current accounts. Nevertheless, these estimations suggest that the current account deficits in Estonia and Latvia may have become excessive in recent years. Of course, it is rather difficult to establish which size of the current account deficit is sustainable and which is not. Nonetheless, large current account deficits create vulnerabilities in any case. Although the new member states will gain immensely from the fact that in the monetary union a currency crisis becomes rather unlikely[8], changes in investors' sentiments can nevertheless occur and might require major adjustments in the domestic demand. Likewise, the investments must prove sufficiently efficient to allow a repayment of the debt without costly demand adjustment. This holds all the more as already the current accounts of quite a few new member states are, to a growing extent, determined by the income payments.

STABILITY OF THE FINANCIAL SYSTEM

Closely related to the question of sustainable current accounts is the issue of financial stability during the growth process and the impact of the financial market integration on the new member states' domestic demand and financial stability. On the one hand, the better access to financing investment will reduce the costs of the catching up growth. On the other, the further reduction of the interest rates may carry risks that threaten macroeconomic and financial

[8] Begg et al. (2003) as point this out. The Deutsche Bundesbank (2006) also stresses that the current account deficits of the new member states are linked to the catching up growth process. In particular the FDI into technology- intensive sectors are supposed to improve the capacity of the recipient country to service the debt. However, the Bundesbank neglects the benefits of euro area membership for a more stable financing of the current account deficits. Instead it suggests keeping the exchange rate as a tool for possible adjustment. Above all, it states that "joining the euro area too early would make it difficult to set an adequate conversion rate." These arguments are misleading in the sense that, first, the setting of the adequate conversion rate is difficult in any circumstances. Second, in particular the three Baltic states do not have the option of a nominal exchange rate adjustment without great damage to their credibility. Third, all new member states face capital inflows due to return differentials irrespective of whether or not they are members of the euro area. Membership of the EU largely restricts capital controls. Therefore, the protection against sudden changes in capital flows may be an additional benefit of the euro adoption, whereas the need to adjust to shocks is common to both options.

stability and the success of the growth process, as is suggested e.g. by Kröger and Redonnet (2001).

The financial system is crucial for the growth process and for convergence in income levels (cf. Levine 1996). The financial system has to efficiently mobilise savings, choose and control the investment projects and pool risks; and thereby contribute to growth. However, similar to the risks with external imbalances described in the previous section, particular problems arise from the uncertainty that surrounds investment projects and the growth potential. The financial system will extend credit based on its assessment of future growth and risk tolerance on the one hand and access to reserve assets and the interest rate on the other. This can affect the macroeconomic stability and the smoothness of the growth process. If banks misjudge the growth potential or do not monitor the creditors sufficiently, losses may follow that eventually might end up in bank failures[9]. The stability of the financial system therefore depends on the ability of the banks and other financial institutions to make competent judgements on the profitability of projects, to monitor the borrowers and to care for sufficient liquidity and reserves for risk provision.

During phases of very fast growth, problems may be aggravated. Based on an optimistic assessment of the future and the debt repayment ability, an insufficient capacity to closely monitor all investment projects and rising asset prices including those of real estate, banks may contribute to lending booms that might become unsustainable. Boom-bust cycles are modelled in the literature of the "financial accelerator" (cf. e.g. Bernanke and Gertler 1989, Bernanke et al. 1998). According to these models, lending is accelerated during a phase of high growth because asset prices rise, which raises the net worth of the borrowers. Further lending can thus be justified, which amplifies the credit and asset price growth. If the bubble bursts, the opposite may occur. In any case, overexpansion of credits and the financial system will go with similar swings in the real economy implying periods of growth above and below GDP potential and the natural employment rate.

In the new member states, the potential for credit growth and financial deepening is substantial. The financial systems were underdeveloped during the early years of the transition. Bad loans and bank failures plagued some countries for a number of years with heavy costs for the state budget. According to indicators such as credit to GDP or debt to GDP, these economies are still characterised by a low degree of financial intermediation (see the background paper of Bartosz Pawlowski). Recently however, credits have started to grow substantially on account of the favourable growth prospects, a stable macroeconomic environment including declining interest rates and the more aggressive lending by banks. Credit growth has exceeded 40 per cent per annum in the Baltic states, but has substantial also been in Hungary and Slovenia. At the same time, housing prices and credits in foreign currency have moved up markedly. Owing to the euro adoption, this expansion is likely to intensify in the coming years. The lower interest rates may discourage domestic saving, whereas demand for credit will grow further thus heightening the risk of overstretching the financial system. It will have to make even more use of foreign financing and thus increase vulnerability to sudden changes in the exchange rate or international financing conditions.

[9] The banking crisis can even go together with currency crises if the banks have lent money in foreign currency and cannot repay or service the credits, triggering capital outflow ("twin crises") (Kaminsky and Reinhard 1996).

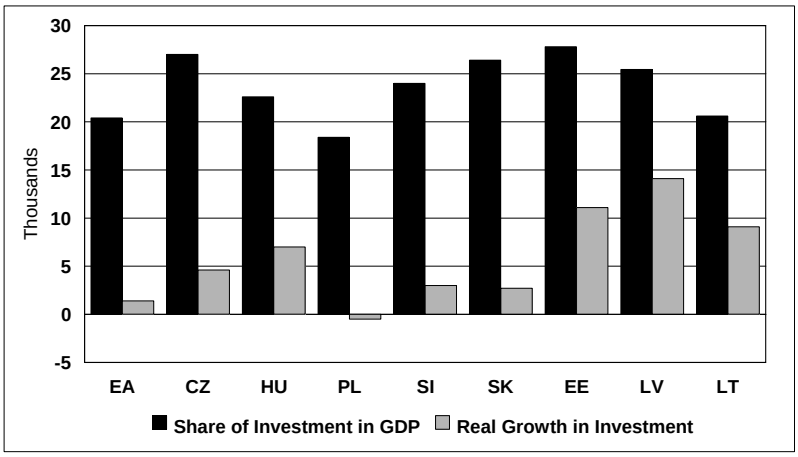
However, the credit growth in the new member states is not unprecedented (cf. the background papers of Fitz Gerald on the experience of Ireland and Spain in the Euro Area, and of Pawlowski). Greece, Spain, Portugal and Ireland (EU-4) experienced similar phases of credit expansion during their approaching euro adoption. The credit boom in the new member states may prove even less pronounced because the convergence in interest rates will imply a smaller decline in the rates – if any at all (see Table 3.8). This is further supported by the fact that already credits in foreign currency (and among them mainly in euro) make up a significant share of the total credits owing to the lower interest rate and in some cases also expectations of nominally appreciating exchange rates. Experience of the EU-4 also suggests that the financial systems could cope well with the credit expansion before the euro adoption, even in spite of a widely differing development of the real economy after the introduction of the euro.

Table 3.7: Interest Rates in the NMS and the EU-4

	Eu-12	Czech Rep	Estonia	Cyprus	Latvia	Lithuania	Hungary	Malta	Poland	Siovenia	Slovak R		Germ	Gr	Spain	Irl	Portu
10 year government bond yields																	
2001	5.0	6.3	10.2	7.6	7.6	8.2	7.9	6.2	10.7		8.0	**1993**	6.5	23.3	10.2	7.7	11.2
2003	4.2	4.1	5.2	4.7	4.9	5.3	6.8	5.0	5.8	6.4	5.0	**1995**	6.9	17.0	11.3	8.3	11.5
2005	3.4	3.5	4.0	5.2	3.9	3.7	6.6	4.6	5.2	3.8	3.5	**1997**	5.6	9.9	6.4	6.3	6.4
	Difference area	to euro											Difference to Germany				
2001		1.3	5.1	2.6	2.5	3.1	2.9	1.2	5.7	-5.0	3.0	**1993**		16.8	3.7	1.2	4.7
2003		0.0	1.1	0.6	0.7	1.2	2.7	0.9	1.6	2.2	0.8	**1995**		10.2	4.4	1.4	4.6
2005		0.1	0.6	1.7	0.5	0.3	3.2	1.1	1.8	0.4	0.1	**1997**		4.3	0.8	0.7	0.7
3 month money market																	
2001	4.3	5.2	5.3	5.9	6.9	5.9	10.9	4.9	16.1	10.9	7.8	**1993**	7.2	23.5	11.7	9.3	13.3
2003	2.3	2.3	2.9	3.9	3.8	2.8	8.5	3.3	5.7	6.8	6.2	**1995**	4.5	16.4	9.4	6.3	9.8
2005	2.2	2.0	2.4	4.3	3.1	2.4	6.7	3.2	5.3	4.0	2.9	**1997**	3.3	12.8	5.4	6.1	5.7
	Difference area	to euro											Difference to Germany				
2001		0.9	1.1	1.7	2.6	1.7	6.6	0.7	11.8	6.6	3.5	**1993**	16.2		4.5	2.0	6.0
2003		-0.1	0.6	1.6	1.5	0.5	6.2	1.0	3.3	4.4	3.8	**1995**	11.9		4.9	1.8	5.3
2005		-0.2	0.2	2.1	0.9	0.2	4.5	1.0	3.1	1.8	0.7	**1997**	9.5		2.1	2.8	2.4

The credit expansion can be viewed as an equilibrium phenomenon in the sense that it corrects the very low credit to GDP ratios to levels observed in countries of a similar development stage. Although testing such links is particularly complicated, the studies of Brzoza-Brzezina (2005) and Égert et al (2006) suggest that the adjustment of the credit to GDP ratio can indeed explain part of the lending boom. Furthermore, in some new member states, investment makes up a similarly high share in GDP as in the euro area (see Figure 3.2); the catching up growth might justify higher investment rates. Therefore, these studies suggest that credit expansion may be a sustainable event in the catching up growth process.

Figure 3.2: Investment in fixed capital as share of nominal GDP; average annual real growth rate of investment in fixed capital (averages of 2000-2005)



Also the banks' profitability and other stability indicators[10] develop favourably. Banks' profitability benefited from the credit expansion due to growing income from interest. In addition, in most new member states foreign owned banks dominate the financial systems. This not only promotes the banks' know-how in credit monitoring, but also reduces the costs of refinancing because of their higher rating.

Nevertheless, serious risks are related to the credit expansions in the new member states, both during the preparation phase and when being in the euro area. Credit growth has been particularly pronounced in mortgages. Due to the very low level of residential as well as mortgage debt in the new member states, there is still huge potential for expansion, if the ratios observed in the euro area are taken as a reference. Problems for financial stability might then arise from the house prices. The large increases in housing prices along with the credit expansion have already shown that risks of acceleration are clearly present in some new member states. Sudden changes in the housing prices may lead to large adjustment needs in the banks' assets. A problem during the preparation phase to euro area membership stems from the fact that the mortgage credits are often raised in foreign currency due to their lower costs. On the one hand, the steady real (and sometimes also nominal) appreciation has so far favoured timely servicing of the credits in foreign currency. On the other hand it greatly increases the vulnerabilities of banks to changes in the nominal exchange rate. This is of particular importance for countries with a flexible exchange rate and a large share of loans in foreign currency, such as Poland and Hungary. Exchange rate stability or at least avoiding major depreciation thus seems crucial for maintaining financial stability in the preparation phase to euro area membership.

High foreign ownership in the new member states might reduce the risk of bank failures because of the high share of credits granted in foreign currency. However, the issue then arises as to who is responsible for the regulation of these banks and who will be responsible for dealing with any financial crisis that will arise. In the event of a financial crisis in one of the new member states, provided that the size of the losses sustained by individual foreign banks in the new member states is small relative to their total assets, the individual

[10] Refer to background paper of Bartosz Pawlowski.

foreign banks should be able to ride out the problem. However, if the losses are large and, in particular, if the crisis arises from a shock to the EU economy rather than to a local economy in a new member states, then the problem could be difficult to deal with. The regulatory authorities in the new member states may well argue that the supervision of foreign banks is the responsibility of the regulators in the banks' home countries. As a result, they could be slow to act to deal with a crisis. For example, the Estonian banking system is largely owned by Scandinavian banks. The Estonian authorities could well argue that a collapse in the Estonian financial system was the responsibility of the Scandinavian authorities. However, the Governor of the Swedish Central Bank in discussing this potential problem at a conference in Brussels in Spring 2004, indicated that many of the banks operating in the Baltic countries were truly Scandinavian banks and that the division of responsibility for their regulation between the Central Banks of the Scandinavian countries was also not clear. The lack of clarity about regulatory responsibility raises a number of dangers: Firstly, regulation may be weaker than would be the case for banks operating in their home country. Secondly, in the event of an impending crisis, there could be a slow bicycle race by regulatory authorities across the EU as they argue about responsibility, raising the risk that a local crisis could affect the stability of the wider EU financial system.

In sum, the new member states can indeed expect that euro area membership will further push credit growth and hence affect macroeconomic and financial stability. However, euro area membership will imply that currency and exchange rate risks (as regards credits in euro) will be eliminated. Because of the already widespread debt in euro the countries will benefit in that vulnerabilities to currency depreciation will diminish and financial stability promoted. All risks for the financial system stemming from the asset prices as collateral or of the general capacity of the banking system to cope with the catching up related financial deepening and credit growth will of course remain. In addition, to stabilise demand, fiscal policy will be main tool available in the euro area. These include tax measures and requirements of collateral (cf. background paper from Fitz Gerald). However, it has to be borne in mind that as these countries are small open economies with liberalised capital flows, for which the exchange rate is of major importance, the interest rate is not an independent variable in any case. Given their growth potential and the expected higher real returns, capital inflows and credit growth are rather likely irrespective of whether or not they are members of the monetary union (cf. Lipschitz et al. 2002). Membership of monetary union largely reduces the risk of currency crises stemming from the current account deficits, and this might be a more important consequence for the new member states than the loss of the potentially stabilising instrument of a nominal exchange rate and the interest rate. For most of the new member states the latter have not been easily available anyway. The issue of finding the most efficient use of capital and the implications of capital inflows and credit growth for macroeconomic and financial stability are common to both options, however.

FISCAL CHALLENGES

As was already indicated in the preceding sections, fiscal policy is the remaining tool for demand stabilisation in a monetary union. The requirement of a balanced budget on average during the business cycle fixed in the Stability and Growth Pact was intended to allow a flexible use of fiscal policy during the business cycle and to counteract the effect of shocks. However, fiscal policy dilemmas can arise in a case when fiscal deficits already exist and consolidation could be either achieved by lowering expenditure or stimulating growth.

As regards fiscal policy, the new member states can be broadly divided into two categories: four countries are running rather small budget deficits, whereas the other six have been included in the Excessive Deficit Procedure right after entering the EU (cf. Table 3.9). A favourable budgetary situation prevails in the three Baltic states (with hard pegs) and in Slovenia, which has also tightly managed the exchange rate. Large deficits connected with a debt exceeding the 60% determined in the Maastricht Treaty are present in only two cases (Cyprus and Malta). The new member states differ not only in the size of the deficit, but also in the size of the overall government (expenditures as % of GDP) and of the transfers and benefits. Generally the countries with the higher deficits have the larger share of expenditures in per cent of GDP in transfers and also subsidies (cf. Table 3.3 in the background paper by Antczak, Markiewicz and Siwinska). In Poland, Hungary and Slovakia, interest payments exceed or are close to 3% of GDP.

Table 3.9: Fiscal Indicators

	Net lending (+) /net borrowing (-)	Total gen gov expend	Total gen gov rev	Gen gov consolidated gross debt	Net lending (+) /net borrowing (-)	Total gen gov expend	Total gen gov rev	Gen gov consolidated gross debt
	eurozone12							
2002a00	-2.5	47.7	45.2	69.2				
2003a00	-3.0	48.3	45.3	70.4				
2004a00	-2.7	47.6	44.8	70.8				
	Czech R				Hungary			
2002a00	-6.8	46.9	40.2	29.8	-8.4	52.1	43.6	55.5
2003a00	-12.4	53.5	41.0	36.8	-6.4	49.8	43.4	57.4
2004a00	-3.0	44.3	41.4	36.8	-5.4	49.7	44.4	57.4
	Estonia				Malta			
2002a00	1.0	36.8	37.8	5.8	-5.7	45.5	39.8	63.2
2003a00	2.4	36.7	39.1	6.0	-10.4	50.3	39.9	72.8
2004a00	1.5	36.4	37.9	5.5	-5.1	48.8	43.7	75.9
	Cyprus				Poland			
2002a00	-4.5	40.6	36.1	65.2	-3.3	45.6	42.3	41.2
2003a00	-6.3	45.4	39.1	69.8	-4.8	45.8	41.0	45.3
2004a00	-4.1	44.1	39.9	72.0	-3.9	44.8	40.9	43.6
	Latvia				Slovenia			
2002a00	-2.3	36.1	33.8	14.2	-2.6	48.0	45.4	29.8
2003a00	-1.2	35.0	33.8	14.6	-2.7	47.9	45.2	29.4
2004a00	-0.9	35.8	34.9	14.7	-2.0	47.4	45.4	29.8
	Lithuania				Slovakia			
2002a00	-1.4	34.2	32.8	22.4	-7.8	43.8	36.1	43.7
2003a00	-1.2	33.1	31.9	21.4	-3.8	39.7	35.9	43.1
2004a00	-1.4	33.2	31.8	19.6	-3.2	40.6	37.4	42.5

Thus, in some cases large budget deficits add to the vulnerabilities of the new member states, in particular as long as they are outside of the euro area. As was already indicated in the previous section, the countries can be considered emerging markets with low financial depth, and the government debt may include also liabilities in foreign currency. Large budget deficits are among the causes of currency crisis and exchange rate turmoil in small open emerging economies. Independently of that, budget consolidation is required in the Maastricht criteria on nominal convergence.

However, the consolidation process might be complicated by the fact that a number of budgetary liabilities are legacies of the transition process (e.g. costs of cleaning up of banks balance sheets in the Czech Republic or high debt accumulated already in the planned era in Hungary) and that the catching up growth process and the membership in the EU entails additional costs for the budgets[11]. The background paper by Antczak, Markiewicz and Siwinska studies this aspect in more detail. According to the authors, the additional fiscal pressures from the EU accession can amount up to 2.6% of GDP. These are related to the membership fees, co-financing of EU projects, environmental and infrastructure requirements. While in general these are beneficial to the growth process, they may create additional strains for the state budget. The same applies to the impact of pension reforms. Hungary, Poland and Slovakia have introduced a second, fully funded mandatory pillar of the pension system, which may lead to lower fiscal expenditures and receipts in the longer run, but imply short to medium-term costs. In the background paper of Catherine Mathieu and Henri Sterdyniak it is argued that the rules of the SGP may not be entirely adequate for the new member states. Because of the higher investment needs, a Golden rule might fit countries catching up better and help avoid harming growth by budget restrictions. The rather low debts and small size of the new member states make it unlikely that risks for the euro area are raised. All in all, the authors suggest reforming fiscal rules in EMU so as to be in direct reference to the macroeconomic equilibrium of the euro area.

LABOUR MARKET

The functioning of the labour market will be crucial for the abilities of the new member states of the euro area to adjust to shocks but also to maintain competitiveness. Adjustments after shocks and during changing demand and supply conditions will require adjustments in the real wage and demand quantities. The efficient functioning of the labour market is therefore of utmost importance in the monetary union.

In the new member states, the labour markets in some countries are characterised by a lower employment ratio (participation ratio), and a significantly higher unemployment rate than in the euro area (cf. Table 3.10). Only very recently have some indicators started to point towards a higher labour use; the higher growth has so far been based primarily on productivity growth. However, second jobs and working in the informal sector is still rather widespread. The high unemployment rates coupled with substantial long-term unemployment could be taken as evidence that the labour markets in the NMS are ill-suited for adjustment without nominal exchange rate flexibility.

Table 3.10: NMS and Euro Area: Unemployment and Participation Rates

Eu-12	Czech Rep	Estonia	Cyprus	Latvia	Lithuania	Hungary	Malta	Poland	Slovenia	Slovak Rep
Unemployment rate, 2005										
8.6	8.0	7.8	6.1	9.0	8.2	7.1	8.0	17.8	6.3	16.4
Participation rate, age 15-64, 2004										
69	70	70	73	70	69	61	58	64	70	70

Labour market flexibility can be assessed with reference to the labour market institutions such as the wage determination process, the benefit system and active labour market policies. As in the euro area, the wage determination

[11] although not necessarily for the entire economies

process (as regards central or decentralised bargaining) is rather diverse. However, wage bargaining takes place more often at the firm level (cf. Ederveeen and Thissen 2004). The only exception is Slovenia where wages are set by centralised bargaining. Slovenia also has a rather long history of wage indexation, which was amended by forward-looking clauses only recently. Ederveen and Thissen, similar to Boeri (2005) find that based on a number of indicators, the new member states could be considered less rigid than the labour markets in the euro area. For instance, replacement rates in unemployment benefits are stricter and paid for a shorter duration. Also based on job turnover and reallocation of workers, the new member states do not seem to have rigid labour markets (Boeri 2005). Similar conclusions are arrived at by von Hagen and Traistaru (2005) who test the real wage responsiveness to unemployment rates in the new member states. However, major problems are regional mismatches and low regional labour mobility also because of insufficiently developed housing markets.

In their background paper, Radziwill and Walewski study nominal wage flexibility as an adjustment mechanism. It is first recalled that the adjustment is required in the real unit labour costs and not necessarily in the nominal wage because wage costs have to be put into perspective with the productivity level. Their research indicates that downward nominal wage flexibility in the new member states is rather limited, but they can detect real unit labour costs flexibility. In the past ten years the adjustment of the real unit labour costs has occurred through moderation of real wage growth and productivity improvements that were not reflected in real wage growth. The authors conclude that as long as the new member states can expect high productivity growth, this will increase their ability to adjust the real wage despite nominal downward rigidity.

3.4 Aspects of the preparation phase

THE NOMINAL CONVERGENCE CRITERIA

The most closely monitored precondition of euro area membership is the meeting of nominal convergence criteria. Specifically, the ECB and the European Commission are required to report to the Council of the European Union at least once every two years on the progress made by the member states with derogation from euro area membership (ECB 2004, European Commission 2004). The nominal convergence criteria require that the inflation rate and the long-term interest rate of the applicant do not exceed the respective average values of the three member states of the EU with the lowest inflation rate by more than 1.5% and 2%, respectively; that the budget deficit does not exceed 3% of GDP and government debt is lower then 60% of GDP. The exchange rate has to be fixed within the ERM-II and remain stable for two years. Literally, the exchange rates have to be kept in the "normal fluctuation margins provided by the exchange rate mechanism". The current bands of the ERM-II are +/- 15%, but other interpretations also exist. The European Commission suggested that bands of +/-2.25% may also be relevant for the assessment of the exchange rate stability (Convergence report 2000, Annex D).

In his background paper, Szczurek explores the implications of the convergence criteria and their interpretation for the preparation process. In particular, trend inflation rates related to the catching up growth process might be higher in the new member states. The convergence criterion might be met only with temporary measures that reduce growth and/or inflation or a nominal appreciation. Flexibility of the nominal exchange rate might therefore require fluctuation beyond the 2.25% bands. By contrast, inflation targets on the part of the new member states' central banks of 2.5% +/- 1% (Poland) and

3% (Hungary, Czech Republic) may in themselves create problems with meeting the inflation criterion.

Indeed, the two countries with low inflation among the new member states, Lithuania and the Czech Republic, have experienced sustained phases of nominal (effective) appreciation[12]. Currency boards, in particular if the countries cannot benefit from a depreciation of the US dollar to the euro, do not allow for the possibility of using a nominal appreciation for containing the effect of the trend real appreciation on inflation. Temporary measures such as changes in the VAT, delays in the adjustment of regulated prices or short-term demand management may still be available for meeting the Maastricht criteria. However, in all likelihood this implies that inflation will pick up again once the countries have joined the euro area, which raises questions as to the intended effect of the nominal convergence requirement.

The exchange rate criterion is particularly demanding not only because of the simultaneous need to meet the criteria of low inflation and a stable exchange rate. Szczurek highlights the problems that might arise for the countries that have so far run more flexible exchange rate strategies to cope with the capital flows. If the fixed exchange rates are not entirely credible, based either on inconsistent macroeconomic policies, an insufficient willingness to defend the peg, or vulnerabilities such as current account deficits and exposure of banks to exchange rate risk, speculative attacks on the currency may follow with adverse effects on growth and stability[13]. Such reasoning also led the Central European countries to choose more flexible exchange rate regimes in the later phase of the transition to protect their economies. Of the three countries that have not yet entered ERM-II, Hungary has a fixed exchange rate with a wide band, where the central parity was shifted downwards in early 2003 to reduce appreciating pressures. Interest rates have been used extensively for stabilisation of the exchange rate. The Czech Republic has a nominally flexible exchange rate, but the central bank has intervened on some occasions in the foreign exchange market and has set interest rates also with a view to stabilising the exchange rate. In Poland, the exchange rate has been floating without any intervention from the central bank since 2000. The re-fixing of the exchange rate will significantly change the monetary policy setting in Poland and has to be well prepared in order to be credible in the market. Szczurek explores in more detail how the fixing of the exchange rate can in such case induce movements in the exchange rate and speculative capital flows. As a result, the simultaneous meeting of the nominal convergence criteria and the smooth catching up growth process may be hampered by the need to stabilise the exchange rate.

CHOICE OF PARITY

The choice of the final parity has serious implications because an incorrectly chosen parity will require adjustment within the monetary union. Whereas an undervalued parity may add safety to the preparation process, it might cause overheating and higher inflation once the economy in question is a member of the euro area. By contrast, an overvalued parity may require a downward correction of the real exchange rate, which may come at the cost of output and employment. Given the fact that real appreciation is expected to continue in the new member states, and that the easier access to financing investment may add to the already vivid demand, an overvalued entry might stabilise demand in these economies. An overvalued entry would also decrease the credit burden in

[12] cf. background paper on price level convergence and inflation.

[13] Buiter (2004) calls the need to participate in the ERM-II a "purgatory" because of the explicit requirements for central banks to target more than one goal.

countries with high credits in foreign currency. This strategy would however imply even higher current account deficits in the early years of euro area membership; the numerous vulnerabilities of the new member might be further aggravated. An irrevocable fixing of the exchange rate at an overvalued level might lead to testing the adjustment mechanisms of the new member states at a very early stage of euro area participation. Nevertheless, the experience with the fixing of the exchange rates in 1998 and with the choice of the ERM-II parities of the new member states suggests that the final conversion rates are fixed to the market rates irrespective of whether or not these correspond to (inherently uncertain) equilibrium exchange rates. To assess the impact of misaligned entry rates on the performance of the countries in the euro area, the background paper of Fic, Barrell and Holland contains simulations of the adjustment after a misaligned entry to the euro area. Whereas in the Baltic states, a misaligned entry could be corrected rather quickly; in the Central European countries the full effect of the wrong parity might evaporate only after five years.

FULFILMENT OF THE NOMINAL CONVERGENCE CRITERIA IN 2005

The nominal convergence performance will be assessed in summer 2006 based on the trends in the preceding two years and on the latest data. Table 3.11 summarises how the new member states fulfilled the criteria on the inflation rate and the long-term interest rate in 2005 and on deficit and debt in 2004 (the latest available data)[14].

Table 3.10: Nominal Convergence According to the Maastricht Criteria

2005	fi	se	nl	cz	dk	fr	de	cy	uk	at	pt	eu12	ie	pl
HICP rate	0.8	0.8	1.5	1.6	1.7	1.9	1.9	2.0	2.1	2.1	2.1	2.2	2.2	2.2
10y GB	3.4	3.4	3.4	3.5	3.4	3.4	3.4	5.2	4.5	3.4	3.4	3.4	3.3	5.2
Deficit (2004)				-3.0				-4.1						-3.9
Debt (2004)				36.8				72.0						43.6
	it	**si**	**be**	**mt**	**lt**	**sk**	**es**	**gr**	**hu**	**lu**	**ee**	**lv**	**EU**	**EA**
HICP rate	2.2	2.5	2.5	2.5	2.7	2.8	3.4	3.5	3.5	3.8	4.1	6.9	2.5	2.9
10y GB	3.6	3.8	3.4	4.6	3.7	3.5	3.4	3.6	6.6	3.4	4.0	3.9	5.4	5.4
Deficit (2004)		-2.0		-5.1	-1.4	-3.2			-5.4		1.5	-0.9		
Debt (2004)		29.8		75.9	19.6	42.5			57.4		5.5	14.7		

A first step is to define the reference value. According to the Maastricht treaty, the inflation and interest rate criterion is defined in relation to the values of the three EU member states with the lowest inflation rate. It was later clarified that this requires that the rates are positive. Nevertheless, the inflation and interest rate criteria could, in principle, be fixed with reference to countries that are not members of the euro area and thus face different monetary conditions e.g. through their exchange rate. The definition relative to the countries with the lowest inflation rates in the EU was chosen in the 1990s because the monetary union did not exist. Now it is argued that the criterion based on the entire EU has to be kept due to "equal treatment" and that these provisions could not be easily changed. However, in 2000 (Convergence report 2000) adjustments to the exchange rate criterion were made because the euro existed and exchange rate stability need not be defined relative to the "median currency". As a result,

[14] Very detailed comments on the fulfilment of the convergence criteria up to 2004 are contained in the Convergence reports of the ECB and the Commission, and in Backé et al. (2004).

an adjustment of the inflation criterion to the more consistent inflation rates of euro area member states may not be too difficult to motivate.

In 2005, the reference value for the inflation criterion in the strict sense would be set by Finland, Sweden and the Netherlands and would amount to 2.5%. If countries of the euro area alone were used for the determination of the criterion, the critical value would amount to 2.9% principally due to Finland, the Netherlands and France. The reference value for the interest rate criterion amounts to 5.4% in both cases.

Of the new member states, all countries except Cyprus and Malta fulfil the debt criterion; in addition the Baltic states, Slovenia, and the Czech Republic fulfilled the deficit criterion in 2004. Based on the data for 2005, the Czech Republic, Cyprus, Poland and Slovenia and Malta meet the inflation criterion in the strict sense, whereas Lithuania and Slovakia are below the limit determined by euro area member states. Turning to the three countries that aim at euro adoption in January 2007, Slovenia fulfils all four criteria. Lithuania misses the criterion of inflation in the strict sense, but is still within the limit set by the euro area member states. Estonia has recently recorded a significant pick-up in the inflation rate, which exceeds the required value quite substantially. The Commission has already indicated that they interpret both the rate of Lithuania and Estonia as too high[15]. However, the high inflation rates might be due to temporary effects of hikes in the oil price and in administered prices. The rate of core inflation amounted to 2% in Estonia and 1.2% in Lithuania in 2005. Latvia, which aims at euro adoption in 2008, currently records a particularly high inflation rate. Although this might owe to the high growth and possible overheating of the economy; the long period of nominal effective currency depreciation may also have contributed.
Therefore, the figures suggest that at least one country aiming to adopt the euro in 2007 will fulfil the required preconditions. Uncertainties remain in relation to Estonia and Lithuania.

3.5 Implications for the euro area

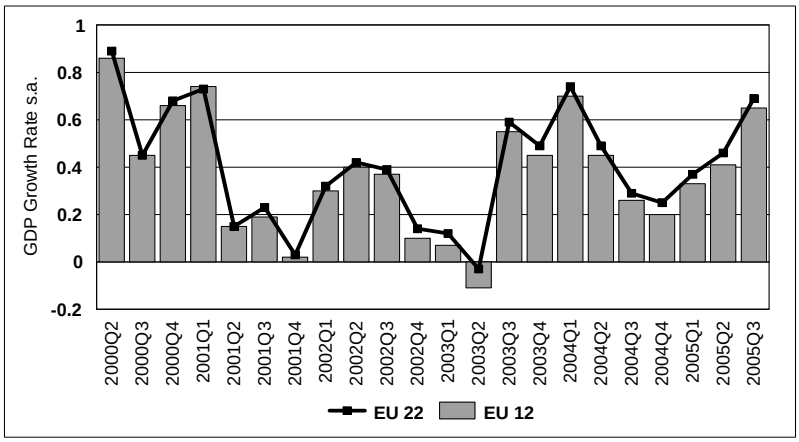
INCREASED HETEROGENEITY

The enlargement will also affect the euro area as a whole, although perhaps not primarily through the impact on the aggregate. First, as was stated earlier, GDP in current prices will increase by only 6%. The process of catch up growth will be a long-term process and the weight of the new member states in the euro area will e also change, but only at a moderate pace. On the basis of the growth rate in the new member states exceeding that in the old member states by 2-4% in real and nominal terms, calculation indicate that the share of the new member states in the enlarged euro area would increase by one percentage point over the next five years[16]. Second, despite the substantially higher growth in the new member states, the growth rate of the euro area will rise only slightly. In 2004 the growth of the EU-22 amounted to 2.3%, in the euro area it was 2%. Therefore, the effect on the dynamics of GDP growth will be rather minor (Figure 3.3).

[15] Bloomberg, 1 February 2006

[16] It is assumed that all new member states enter the euro area in 2007. This is of course unlikely.

Figure 3.3: Seasonally adjusted GDP growth rates



Third, the average inflation rate of the euro area will increase but only moderately following enlargement. Assuming a euro area inflation rate of 2%, and a rate in the order of the equilibrium real appreciation determined in the background paper on real exchange rates (cf. page 50 of this report) in the new member states, the overall inflation rate may increase by 0.2 percentage points. As such this does not constitute a major issue as this may only reflect the catching up growth process of the new member states. On the other hand, the ECB targets an inflation rate of close to, but below, 2%, which it has failed to meet already in the current euro area in the past years. Therefore, the additional increase due to the new member states will in all likelihood remain small, however, the definition of price stability may have to be considered and marginally adjusted.

Whereas the effect of the new member states on the aggregate development of the euro area will be rather limited, diversity in the euro area will most probably amplify. The GDP growth rates are and might remain more volatile that those of the euro area and of most of the old member states in the euro area. Volatility of growth rates has already been higher in the new member states because of their small size and hence less diverse economic structure (cf. Süppel 2003). The changed policy framework in the monetary union might contribute to even higher volatility in the future[17]. Much the same holds for the inflation rates. These may remain more volatile than in the old member states because of the higher share of food and energy in the consumer baskets of the new member states (cf. the background paper of Lommatzsch and Wozniak). In quite a few new member states core inflation defined as the overall index excluding food, energy, tobacco and alcohol currently only refers to half of the consumer basket.

This will add to the already observed heterogeneity in the euro area, already subject to much debate[18]. The greatest worry concerns the fact that with diverging growth rates and inflation rates, monetary policy that targets the average may be inappropriate for some member states and thus impede stable

[17] Schadler et al. (2005) compare for the Czech Republic the volatility of growth and inflation within and outside the EMU based on simulations in the GEM model. They conclude that the differences might be small, as in the model calculations the output gap fluctuates by 2.1% around potential in the EMU and by 1.9% outside. Inflation rates – assuming an average rate of 3% - range between 1.2 and 4.8% within the euro area and 1.3 and 4.7% outside.

[18] Recent examples are speeches of ECB representatives such as of Jose-Manuel Gonzales Paramo "Regional divergence in the euro area" on 19 September 2005, or of Lucas Papademos on the occasion of the ECB workshop "What effects is EMU having on the euro area and its member states" on 16 June 2005.

and steady growth. However, differences in growth and inflation rates can be natural phenomena within monetary union and need not in themselves create costs for the member states. First, differences prevail in the potential growth rates. Hence the growth rates may differ without any implications for the synchronicity in the cycles. Secondly, disparities in the inflation rate during the cycle may follow if the transmission mechanisms in the individual member states vary. Thirdly and perhaps more importantly, differences in the structure of the economies may imply varying continuous changes in the supply and demand conditions, which may give rise to heterogeneity in the inflation rates. Changes in the real exchange rate between regions of a monetary union are natural and cannot take place but through different inflation rates. Fourthly, some variation in the inflation and growth rates can also stem from dissimilar effects of a shock. A hike in oil prices or a swing in the external exchange rate may be adjusted to differently because of contrasting oil intensity and or oil dependency on the one hand or openness to trade with countries outside of the monetary union on the other. Fifthly, the impact of fiscal policies should not be underrated. In the euro area, the member states are responsible for fiscal policy except for the size of the deficit. The individual governments in the euro area may react differently to the cycle, which can give rise to diverging growth rates and cycles between the member states. In addition, fiscal consolidation programmes or any other kind of fiscal reform may entail tax increases or changes in other expenditure or revenue, which may affect both prices and the business cycle in the respective member state.

These points illustrate that differences among the member states in growth rates and inflation rates can be manifold and quite natural. In the euro area they may in addition be also related to the fact that fiscal policy is neither harmonised nor coordinated. Many investigations have ascribed the differences in inflation rates in the euro area to structural factors (Honohan and Lane 2003, ECB 2003). Nevertheless, whereas differences in the inflation rates as such are a natural phenomenon in the monetary union, persistent deviations may become detrimental to a steady growth process. It will affect the country recording the higher inflation rates as it may pile up imbalances, but may also harm other member states if this triggers a response of the central bank.

Another aspect of enlarging the euro area is its effect on decision making in the ECB. More diverse inflation rates and growth rates might imply regional biases in the voting of the members of the Governing council. As a preparation for enlargement, voting rules have already been changed as suggested by the ECB in 2002 and adopted by the EU Council in 2003. It was decided at the time that when the euro area is enlarged to more than 16 members, the voting scheme would be changed so as to reduce the number of people entitled to vote. However, the determined structure of rotation and group forming could still lead to under-representation of the larger countries (Lommatzsch and Tober 2003, Paczynski 2003). This might be particularly relevant if the countries with a smaller weight (e.g. the new member states) have higher inflation rates and might vote with a regional bias. A "small country bias" could emerge in the ECB's policies. This is tested for by Paczynski in the background paper to this report in which he simulates the outcome of interest rate decisions if the regional representatives decide, in accordance with the cyclical stance and the inflation development in the region. Interest rate preferences are determined in accordance with the Taylor rule; the median of interest rate preferences is then interpreted as the outcome of the voting on the interest rate. The calculations are based on the past development, i.e. inflation rates and output in the euro area member states and the new member states are actual historical values for the period 1997-2005. This should imply higher divergences in the inflation rates and hence the voting then what actually is to be expected.

The results indicate that in the case where all members vote for their regionally preferred interest rate, large heterogeneity in the votes follows and the interest rate decision results in quite substantial deviations of the monetary policy outcome from its optimal path. The situation would not change unless the members of the Council assign more the 85% to area wide objectives. However, if only part of the people entitled to vote (e.g. the Board members) take the area-wide perspective, the problem of the interest rate decision being overly influenced by regional biases could be circumvented. These results are found for both the current voting system where every country has one vote, and for the new voting system with rotation and groups. In the latter the problem of regional biases might even be marginally aggravated. An important result is that these outcomes would apply for both the euro area of 12 countries and the enlarged euro area of 25 countries.

3.6 Conclusions

The enlargement of the European Union will be followed by the enlargement of the euro area quite soon. It will affect both the entrants and the euro area as a whole. For some of the new member states, the Baltic states in particular, who have already run strong exchange rate fixes, the changes in policy options may remain limited. Others however will have to fix the exchange rate and modify their policy settings significantly.

The new member states stand to gain substantially from the adoption of the euro. Most of them have recorded real appreciation, strong credit expansion and current account deficits during the process of catch up growth, which has created vulnerability to changes in investors' sentiments with regard to macroeconomic and financial stability. Being a member of the euro area will make financing of the current account deficit easier and less costly; furthermore it will eliminate the risk of a currency crisis following sharp reversals of capital flows. The lower interest rate in the euro area will promote catch up growth, while financial stability will be enhanced due to the elimination of exchange rate risk to the euro. This is particularly valuable for the countries where credits in euro already play a decisive role in the financial system. Consequently, as emerging markets the new member states can benefit immensely from euro area membership.

Nevertheless, maintaining macroeconomic and financial stability during the growth process will remain a challenging task. A smooth process of catch up growth depends critically on higher growth and income being realised in a sustainable way, i.e. that the debt and credits can be serviced without major demand adjustment. The lower interest rate is likely to be beneficial for investment, but at the same time may challenge the capacity of the financial system to choose and monitor the most efficient investment projects. Changes in investors' sentiments may still occur and affect asset prices or the availability of credit. Financial supervision is all the more important given that foreign owned banks dominate the financial market new member states and it may not be sufficiently clearly defined who regulates and supervises these banks. During the preparation process, fixing the exchange rate in ERM-II poses significant risks for the new member states that have previously had rather flexible regimes. An insufficiently credible fix may exacerbate the vulnerabilities due to current account deficits and a banking sector exposed to exchange rate risk.

The enlargement of the euro area by at least one country, Slovenia, will occur in less than one year. Estonia and Lithuania however may miss the inflation convergence criterion. The Central European countries will most probably take longest for euro area entry, due to the requirements of fiscal criteria and a credible fixing of the exchange rate. As a result, the enlargement process of the euro area by the new member states might stretch over five years or more.

Because of the small size of the new member states, enlargement will only affect the euro area's growth and inflation rates to a limited extent. Both rates will rise slightly without affecting the dynamics. Whereas the higher growth rate may not have any impact on the functioning of the euro area, the higher trend inflation rate might affect monetary policy. The impact will in all likelihood remain small, however the definition of price stability may have to be considered and marginally adjusted. European enlargement also makes it more crucial to rethink economic policy in Europe. If monetary policy cannot react to specific cases, it is necessary to reconsider the fiscal policy framework including the *a priori* set public finance targets. This might reduce the risk that not all countries benefit from the common monetary policy in the same way.

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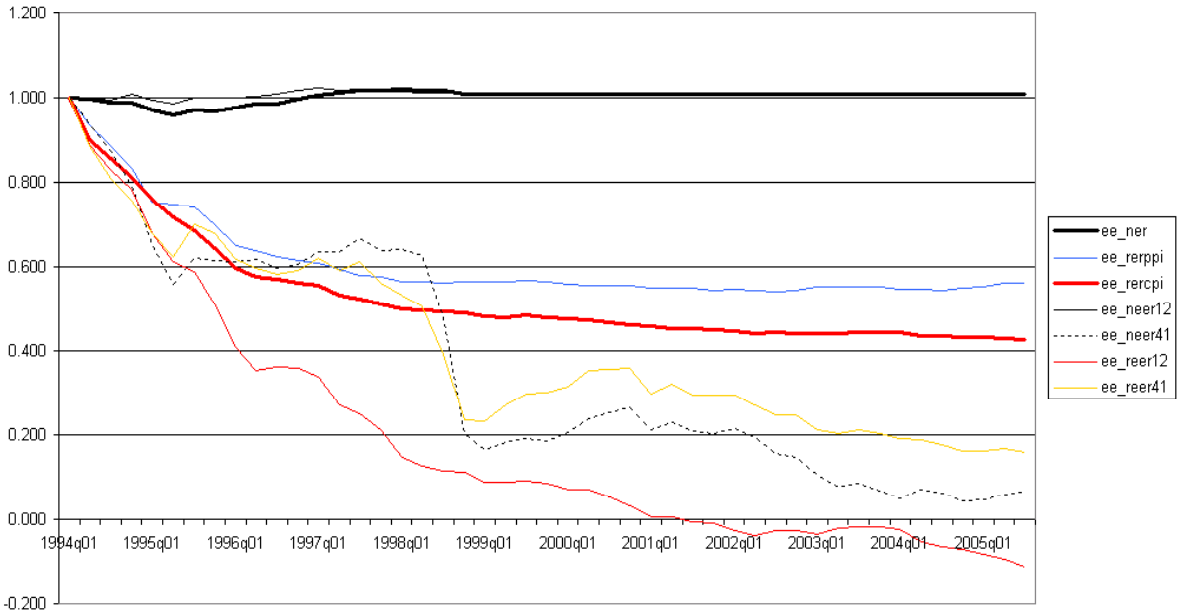
Appendix 3:

Table 3.7: Interest Rates in the NMS and the EU-4

	Eu-12	cz	ee	cy	lv	lt	hu	mt	pl	si	sk		de	gr	es	Irl	pt
10 year government bond yields																	
2001	5.0	6.3	10.2	7.6	7.6	8.2	7.9	6.2	10.7		8.0	**1993**	6.5	23.3	10.2	7.7	11.2
2003	4.2	4.1	5.2	4.7	4.9	5.3	6.8	5.0	5.8	6.4	5.0	**1995**	6.9	17.0	11.3	8.3	11.5
2005	3.4	3.5	4.0	5.2	3.9	3.7	6.6	4.6	5.2	3.8	3.5	**1997**	5.6	9.9	6.4	6.3	6.4
	Difference area	to euro											Difference Germany	to			
2001		1.3	5.1	2.6	2.5	3.1	2.9	1.2	5.7	-5.0	3.0	**1993**		16.8	3.7	1.2	4.7
2003		0.0	1.1	0.6	0.7	1.2	2.7	0.9	1.6	2.2	0.8	**1995**		10.2	4.4	1.4	4.6
2005		0.1	0.6	1.7	0.5	0.3	3.2	1.1	1.8	0.4	0.1	**1997**		4.3	0.8	0.7	0.7
3 month money market																	
2001	4.3	5.2	5.3	5.9	6.9	5.9	10.9	4.9	16.1	10.9	7.8	**1993**	7.2	23.5	11.7	9.3	13.3
2003	2.3	2.3	2.9	3.9	3.8	2.8	8.5	3.3	5.7	6.8	6.2	**1995**	4.5	16.4	9.4	6.3	9.8
2005	2.2	2.0	2.4	4.3	3.1	2.4	6.7	3.2	5.3	4.0	2.9	**1997**	3.3	12.8	5.4	6.1	5.7
	Difference area	to euro											Difference Germany	to			
2001		0.9	1.1	1.7	2.6	1.7	6.6	0.7	11.8	6.6	3.5	**1993**		16.2	4.5	2.0	6.0
2003		-0.1	0.6	1.6	1.5	0.5	6.2	1.0	3.3	4.4	3.8	**1995**		11.9	4.9	1.8	5.3
2005		-0.2	0.2	2.1	0.9	0.2	4.5	1.0	3.1	1.8	0.7	**1997**		9.5	2.1	2.8	2.4

Estonia

Estonia: nominal and real exchange rates



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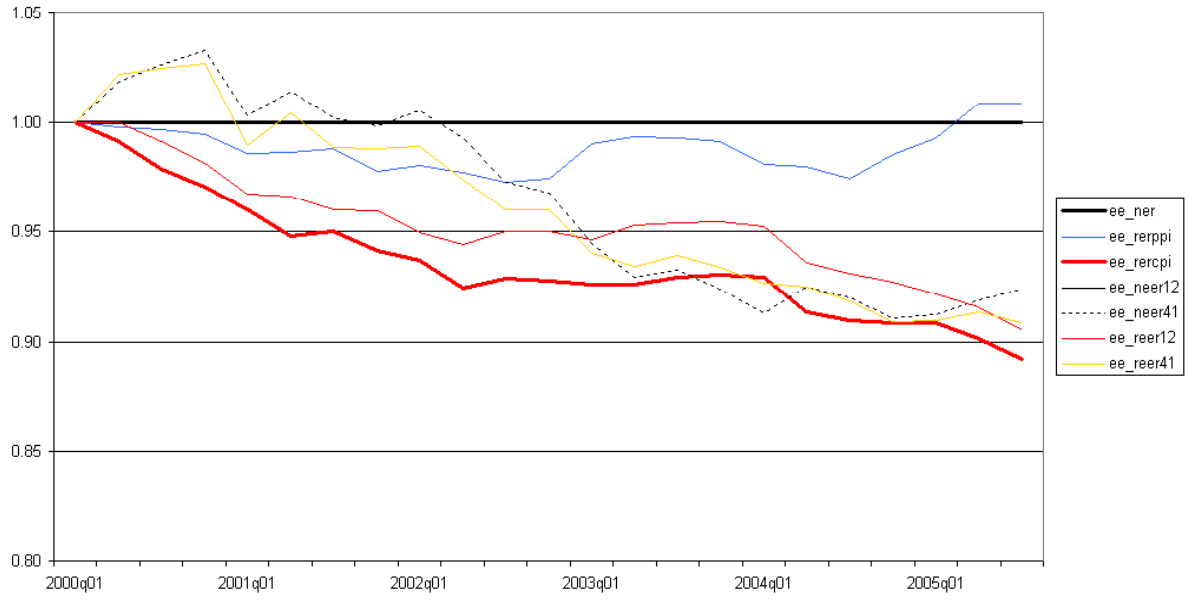
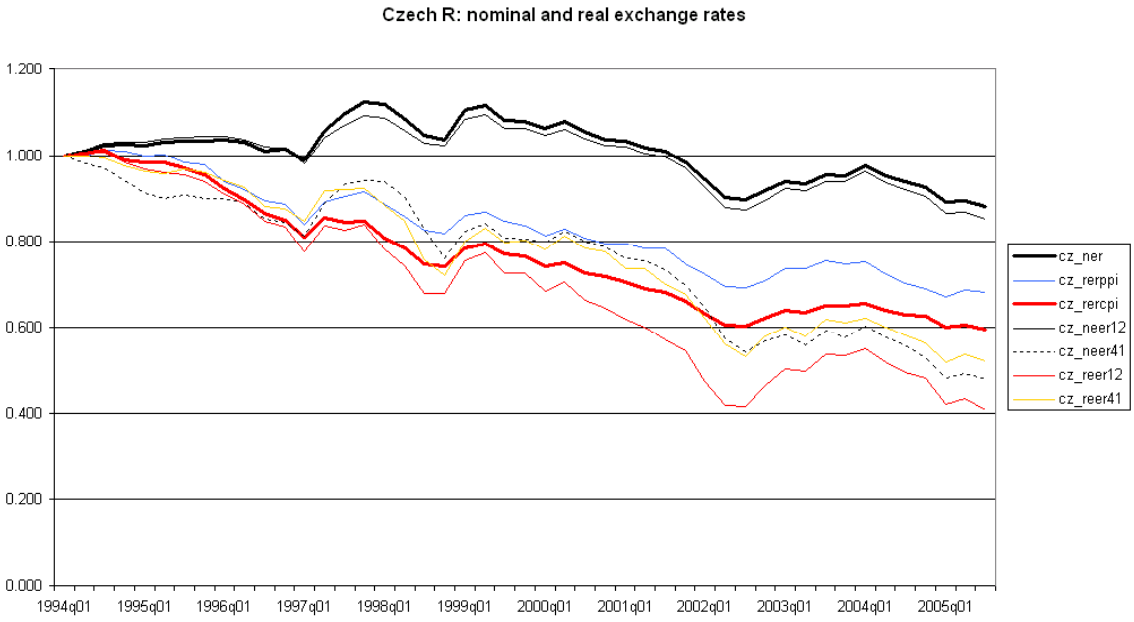
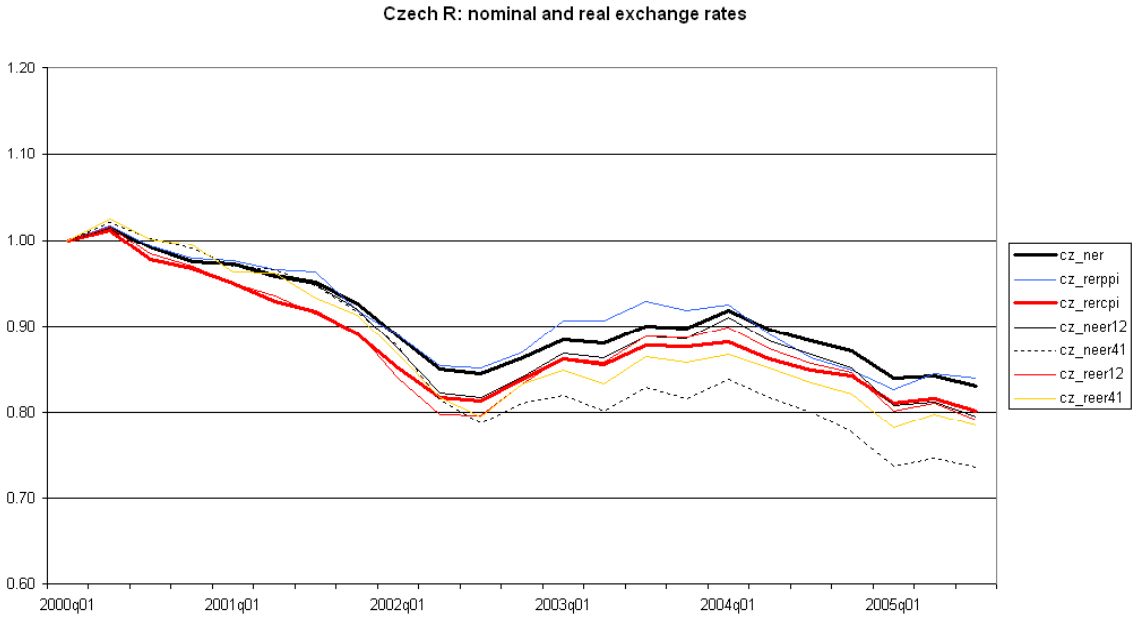


Czech Republic





Hungary

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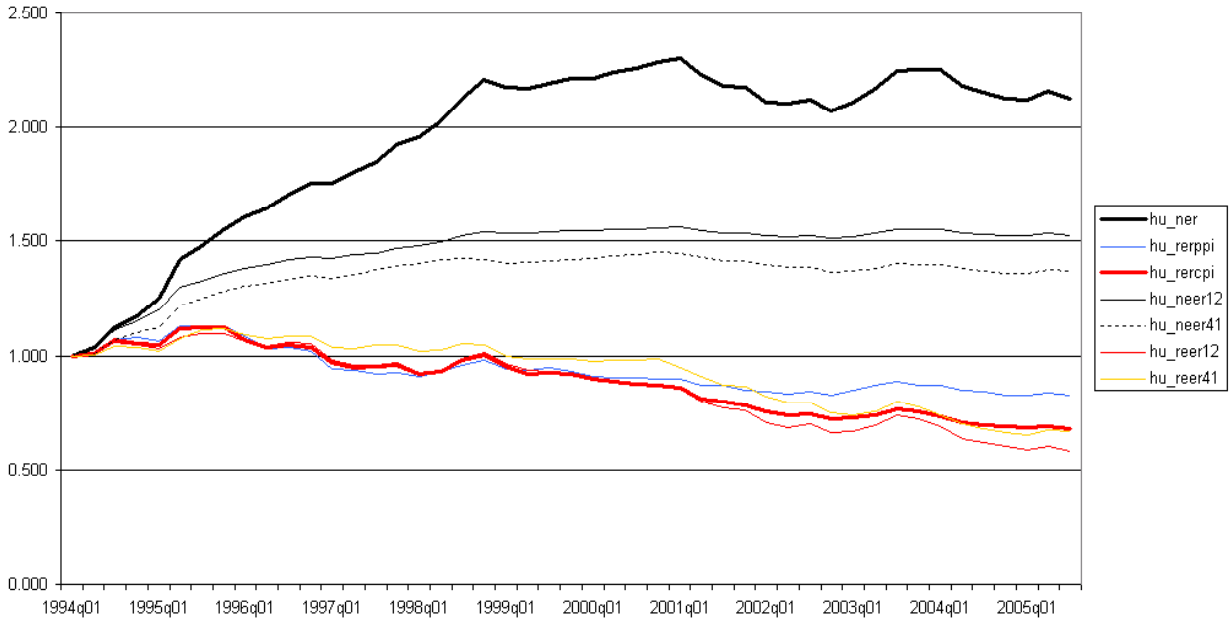

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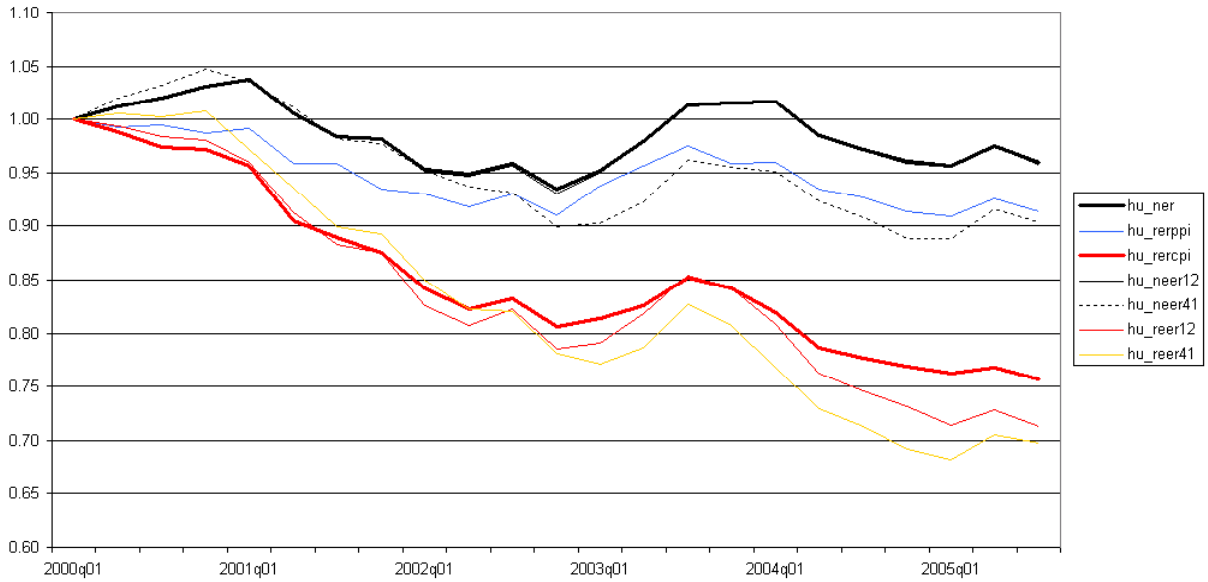
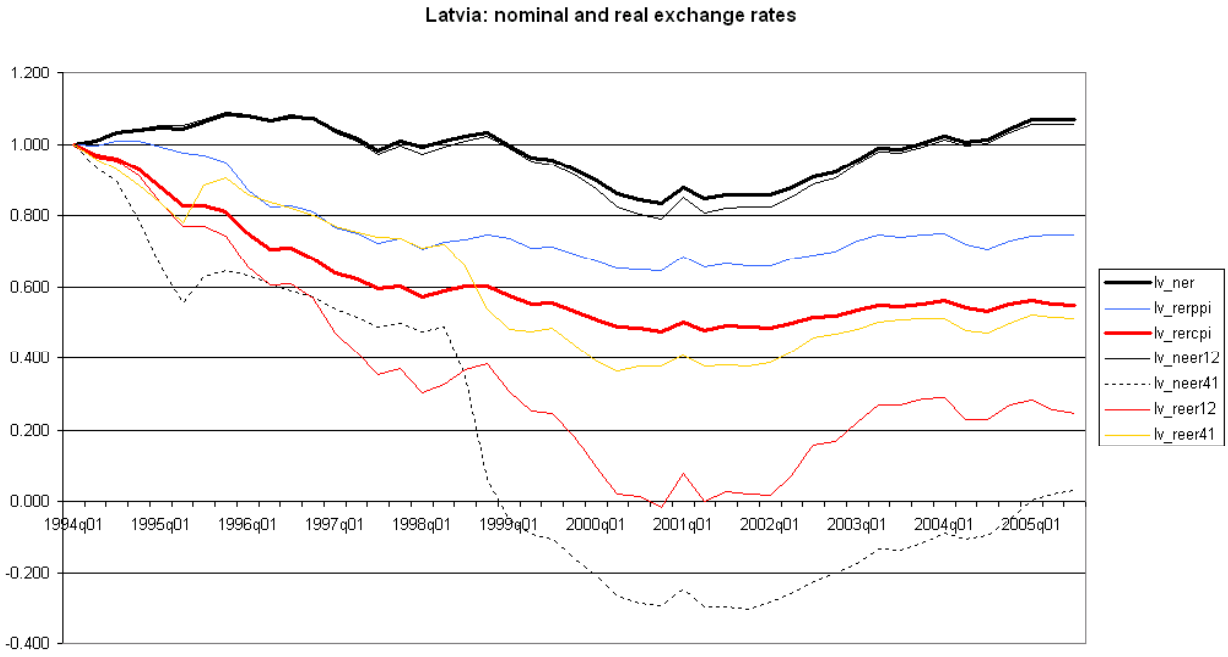


Latvia


Latvia: nominal and real exchange rates
1.200
1.000
0.800
0.600
0.400
0.200
0.000
-0.200
-0.400
1994q01
1995q01
1996q01
1997q01
1998q01
1999q01
2000q01
2001q01
2002q01
2003q01
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lv_rerppi
lv_rercpi
lv_neer12
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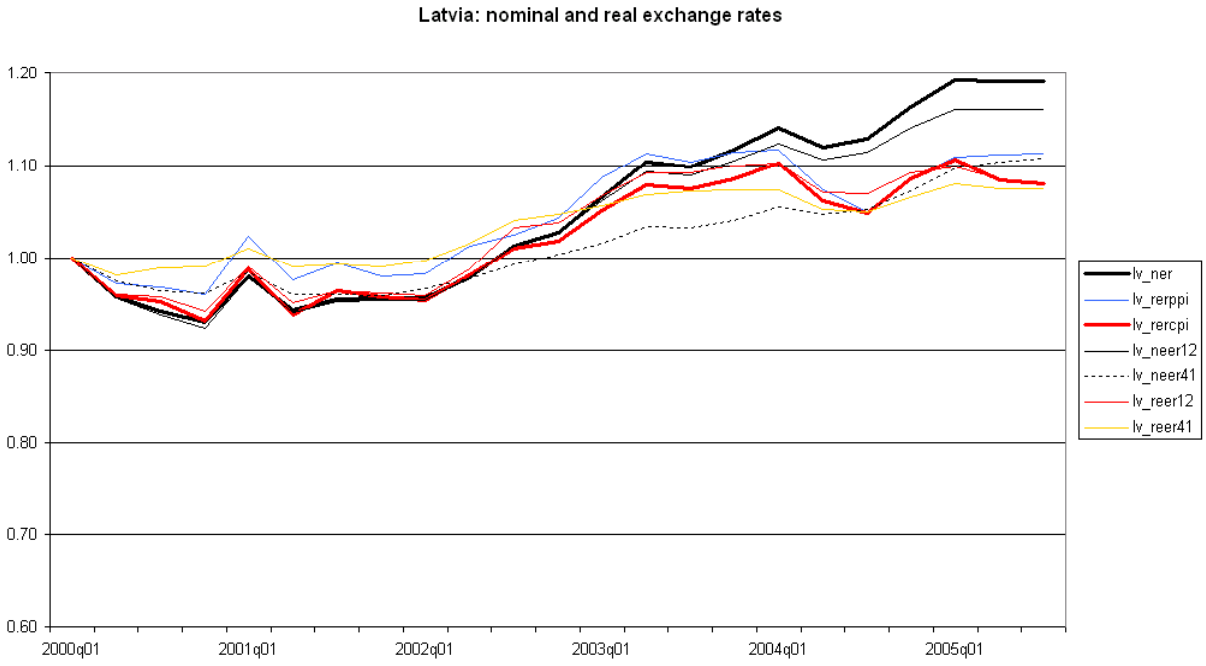
lv_reer41


Latvia: nominal and real exchange rates
1.20
1.10
1.00
0.90
0.80
0.70
0.60
2000q01
2001q01
2002q01
2003q01
2004q01
2005q01
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lv_rerppi
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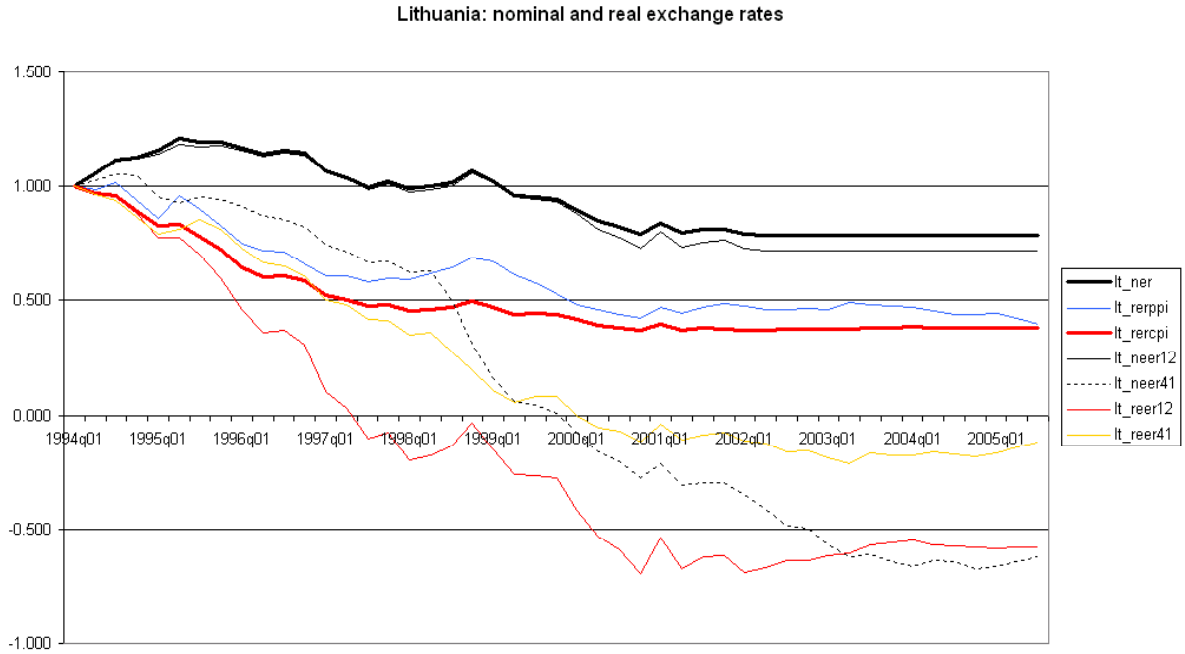
lv_neer12
lv_neer41
lv_reer12
lv_reer41

Lithuania


Lithuania: nominal and real exchange rates
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1.000
0.500
0.000
-0.500
-1.000
1994q01
1995q01
1996q01
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1998q01
1999q01
2000q01
2001q01
2002q01
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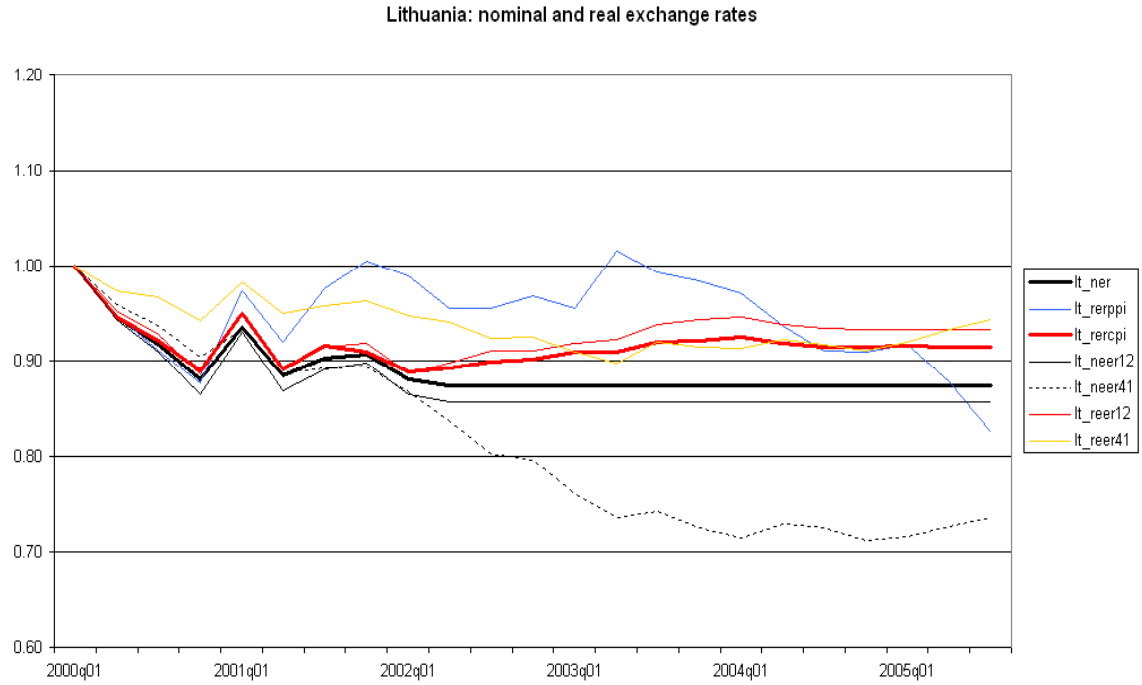
Lithuania: nominal and real exchange rates
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1.10
1.00
0.90
0.80
0.70
0.60
2000q01
2001q01
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2005q01
lt_ner
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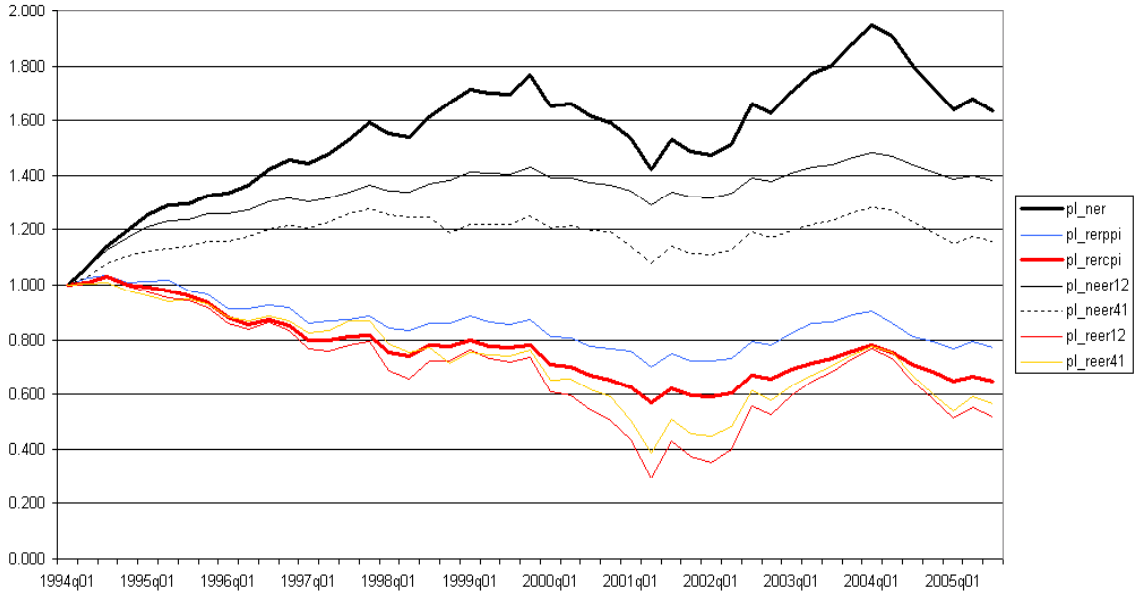
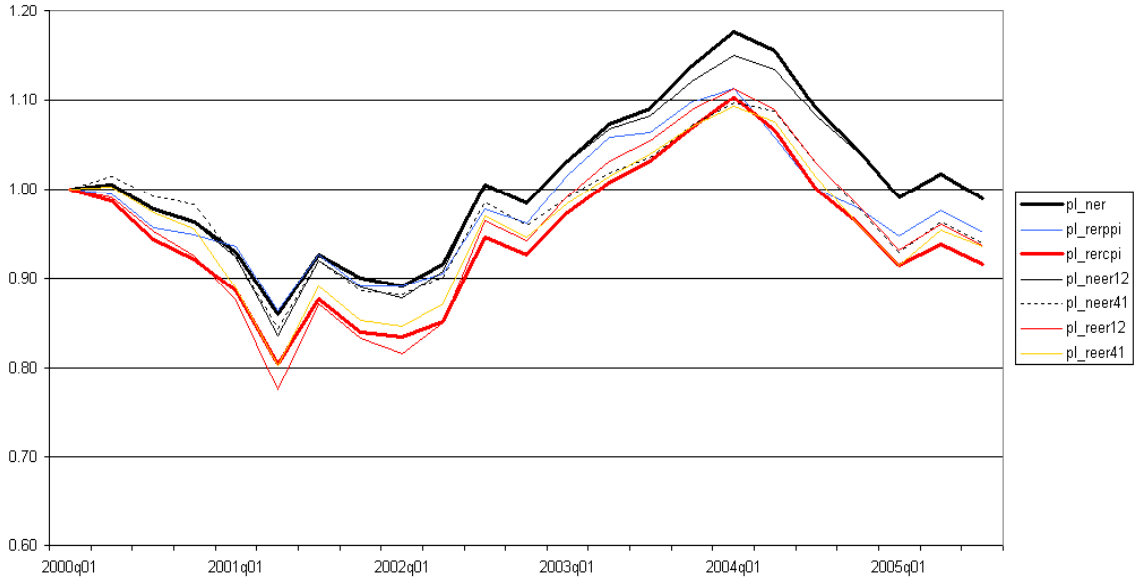
lt_reer41

Poland

Poland: nominal and real exchange rates

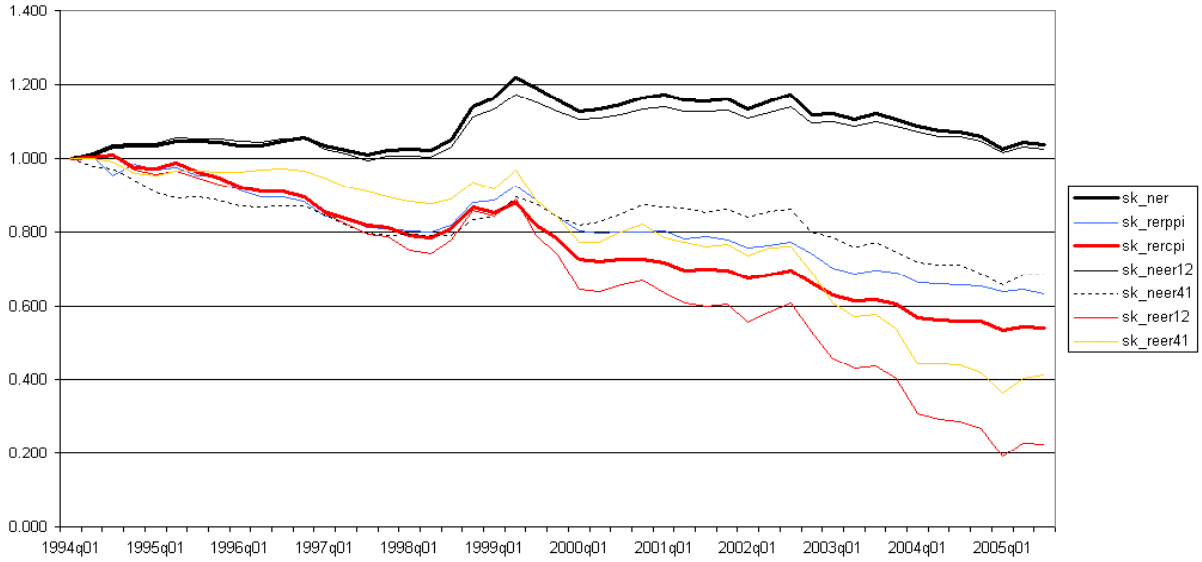


Poland: nominal and real exchange rates

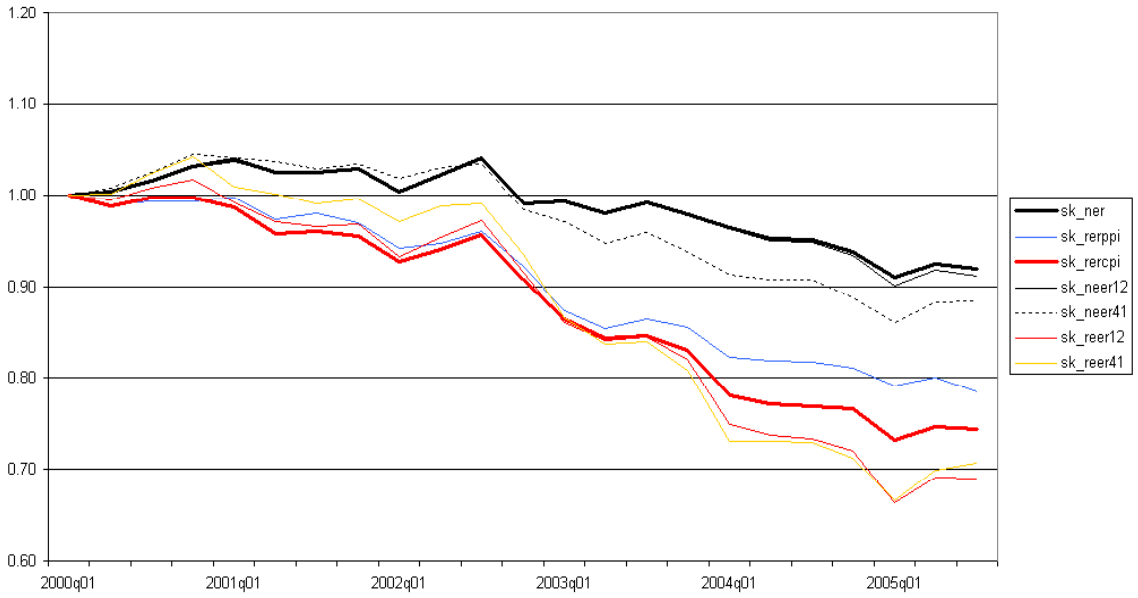


Slovak Republic

Slovak R: nominal and real exchange rates

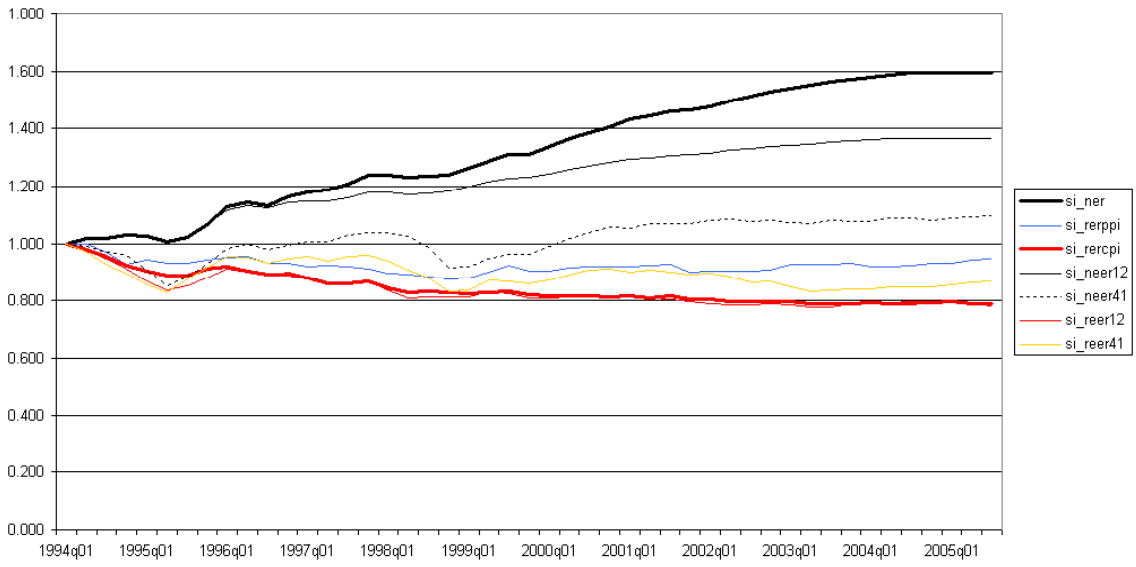


Slovak R: nominal and real exchange rates

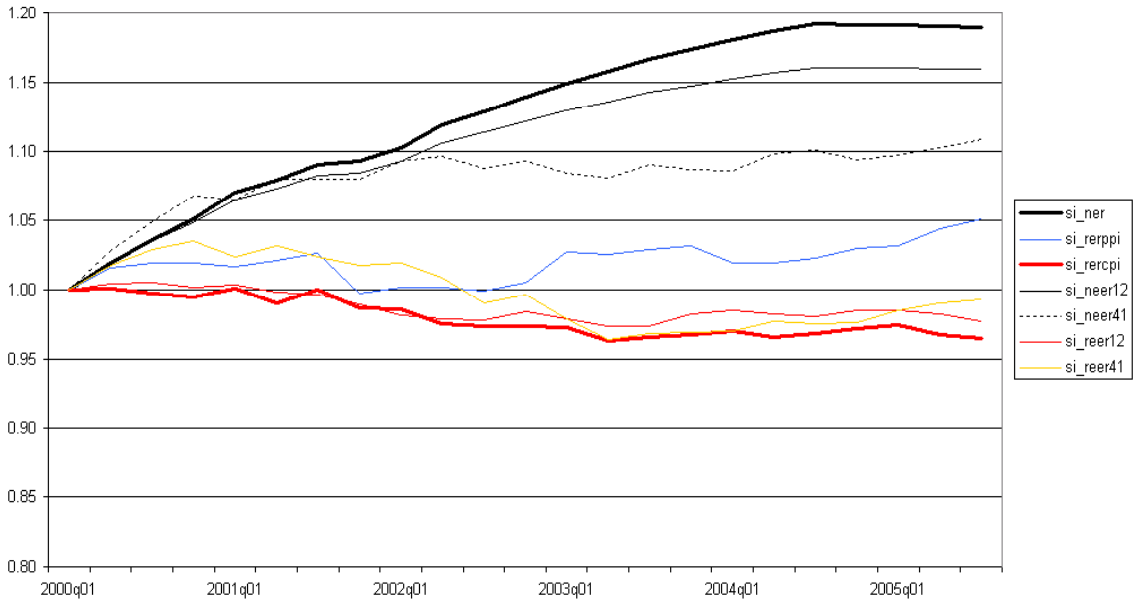


Slovenia

Slovenia: nominal and real exchange rates



Slovenia: nominal and real exchange rates



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